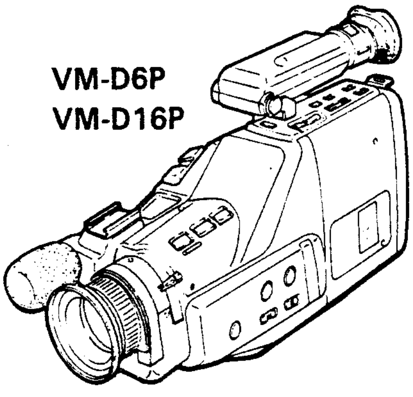
SANYO

Service Mnual

8 mm Camcorder

VM-D6P (VM-D16P)

VM-D6P
VM-D16P



PRODUCTION CODE No.

VM-D6P	126 016 00 (G)
	126 016 04 (SW)
	126 016 05 (E)
	126 016 06 (SP)
	126 016 07 (ME)
	126 016 10 (A)

Specifications

Video recording system	Rotating 2-head helical-scan FM. color under system
Audio recording system	Rotating head FM system
Video signals	PAL color. CCIR standard system
Cassette type	8 mm video tape cassette
Tape speed	SP: 20.051 mm/sec LP: 10.058 mm/sec
Recording/ playback time	180 minutes (P5-90 cassette)
Fast forward/ rewind time	Approx. 8 minutes (P5-90 cassette)
Pickup element	CCD solid-state type
Viewfinder	Electronic (0.7 inch type, black and white)
Lens	Electro-powered 8 × zoom lens f = 8.5 ~ 68 mm F1.6 Close-up function (15 mm ~ 1.2 m) Automatic focus Filter diameter 49 mm
White balance adjustment	Automatic or set
Minimum subject illumination	7 lux
Subject illumination range	7 lux ~ 100.000 lux
Recommended subject illumination	300 lux or more

Power supply voltage	Battery holder input 6V/7.5V/9V
Power consumption	6.8W during camera recording
Operation position	Vertical
Operation temperature range	0°C ~ +40°C (32°F ~ 104°F)
Storage temperature range	−20°C ~ +60°C (−4°F ~ +140°F)
External dimensions	118 × 152 × 302 mm (W × H × D)
Weight	Approx. 1.1 kg (not including battery pack and cassette)
Microphone	Electret condenser type (omnidirectional)
AV terminal	Video input 1 Vp-p. 75Ω unbalanced, negative sync Video output 1 Vp-p, 75Ω unbalanced, negative sync Audio input −6 dBs, 47kΩ or higher Audio output −6 dBs, 2.2kΩ or less
Microphone jack	Mini jack, −64 dBs For low-impedance microphone
Earphone jack	Mini jack, for 8Ω earphone

- Specifications and external appearance are subject to change without notice.

ER91P/G, SW, E, SP, ME, A
ER91P/SP-2
ER93P/G, SW, SP
ER93P/SP-2
ER95P/G, A, ME, SP
ER95P/SP-2

REFERENCE NO. WM-550049

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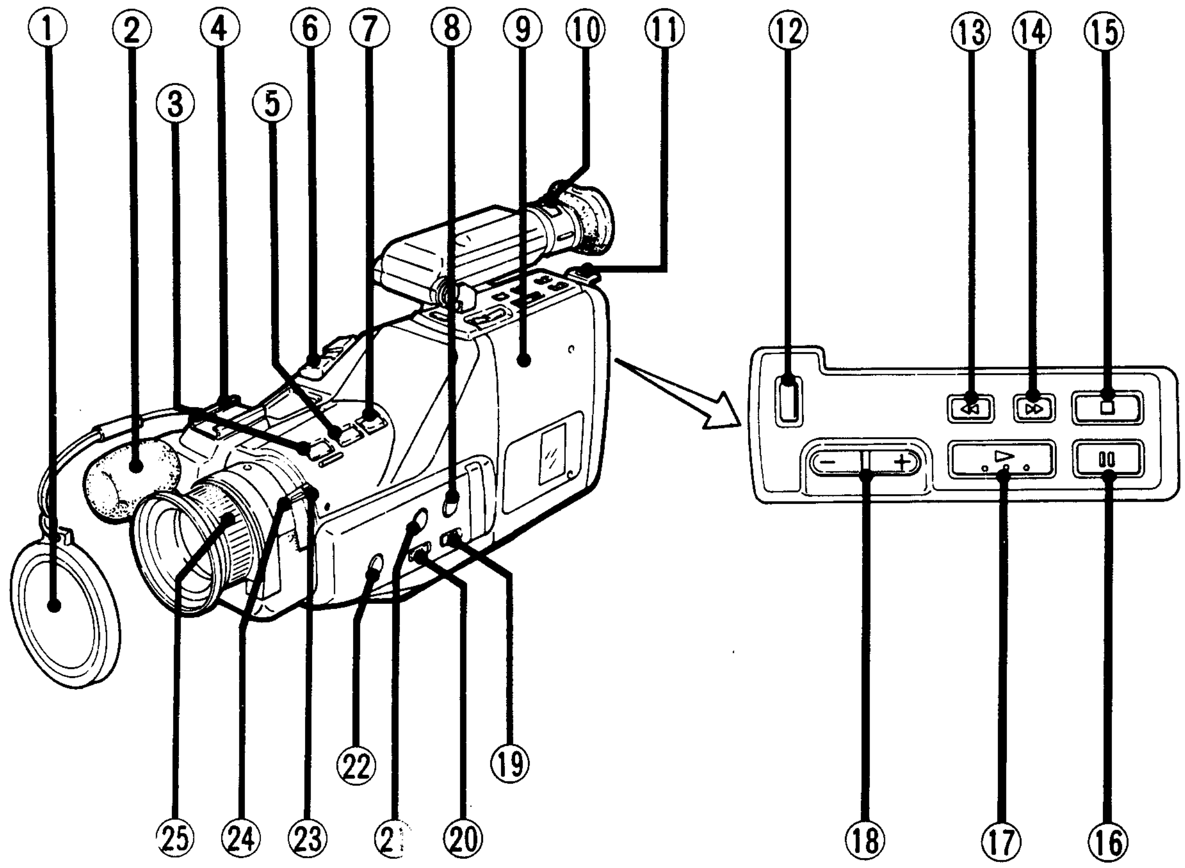
Note :
This manual contains explanations for all the models listed below. Check model functions carefully before referring to it.

	TITLE PAGE	SLOW F.ADV Playback	SHUTTER SPEED (sec.)	AV INPUT FUNCTION
VM-D6P／D16P (SANYO)	1	Can not playback	1／2000 1／120	WITHOUT
VM-D8P／D18P (SANYO)	3	Can not playback	1／4000 1／1000 1／120	WITHOUT
VM-D10P／D20P (SANYO)	3	OK	1／4000 1／1000 1／120	WITH
FA-124 (SIEMENS)	1	Can not playback	1／2000 1／120	WITHOUT
FA-128 (SIEMENS)	3	OK	1／4000 1／1000 1／120	WITHOUT
FVC-P750 (FISHER)	1	Can not playback	1／2000 1／120	WITHOUT
FVC-P950 (FISHER)	3	OK	1／4000 1／1000 1／120	WITHOUT
PV-C860E (PENTAX)	3	Can not playback	1／4000 1／1000 1／120	WITHOUT

1. PART NAMES

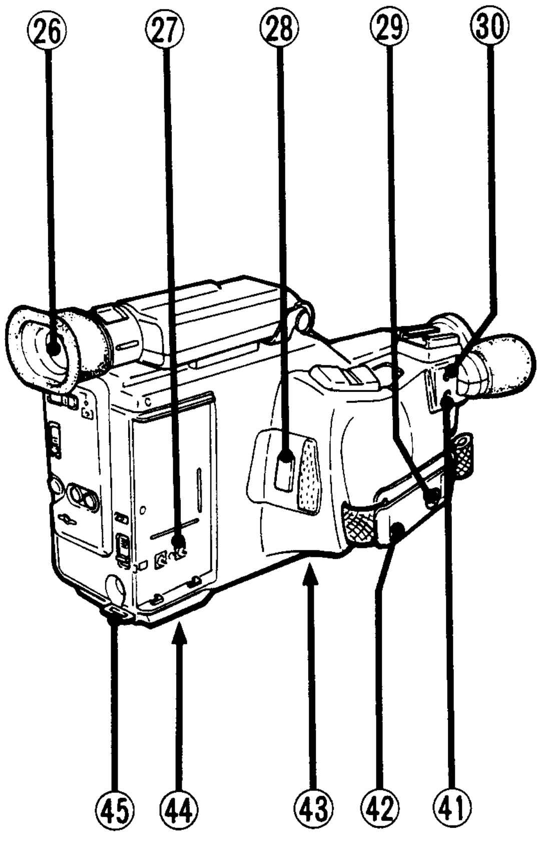
(VM-D6P, VM-D16P, FA-124)

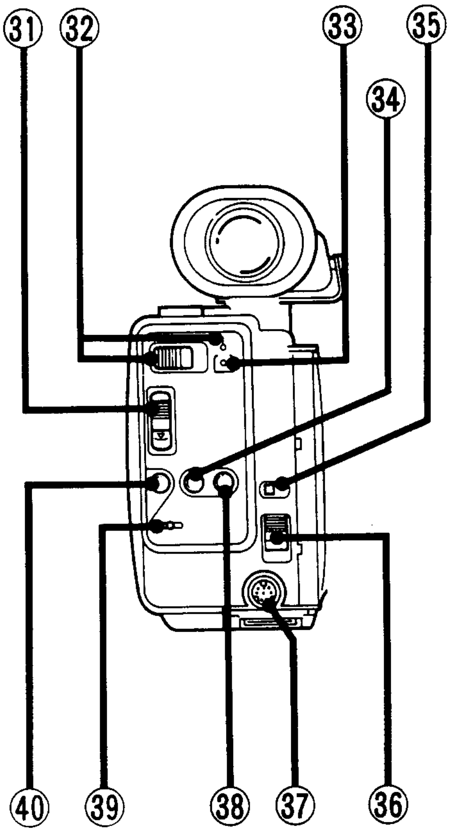
PART NAMES



No.	Name
①	Lens cap
②	Microphone
③	TITLE ON/OFF button
④	Accessory shoe
⑤	TITLE MEMO button
⑥	Power zoom button
⑦	TITLE COLOR button
⑧	HIGH SPEED SHUTTER button
⑨	Cassette holder
⑩	Eyesight compensation lever
⑪	Shoulder belt hook
⑫	REC button
⑬	REW button

No.	Name
⑭	FF button
⑮	STOP button
⑯	STILL button
⑰	PLAY button
⑱	SCENE SEARCH button
⑲	WHITE BALANCE switch
⑳	FOCUS switch
㉑	IRIS button
㉒	FOCUS REV button
㉓	MACRO SET button
㉔	Zoom lever
㉕	Focus ring

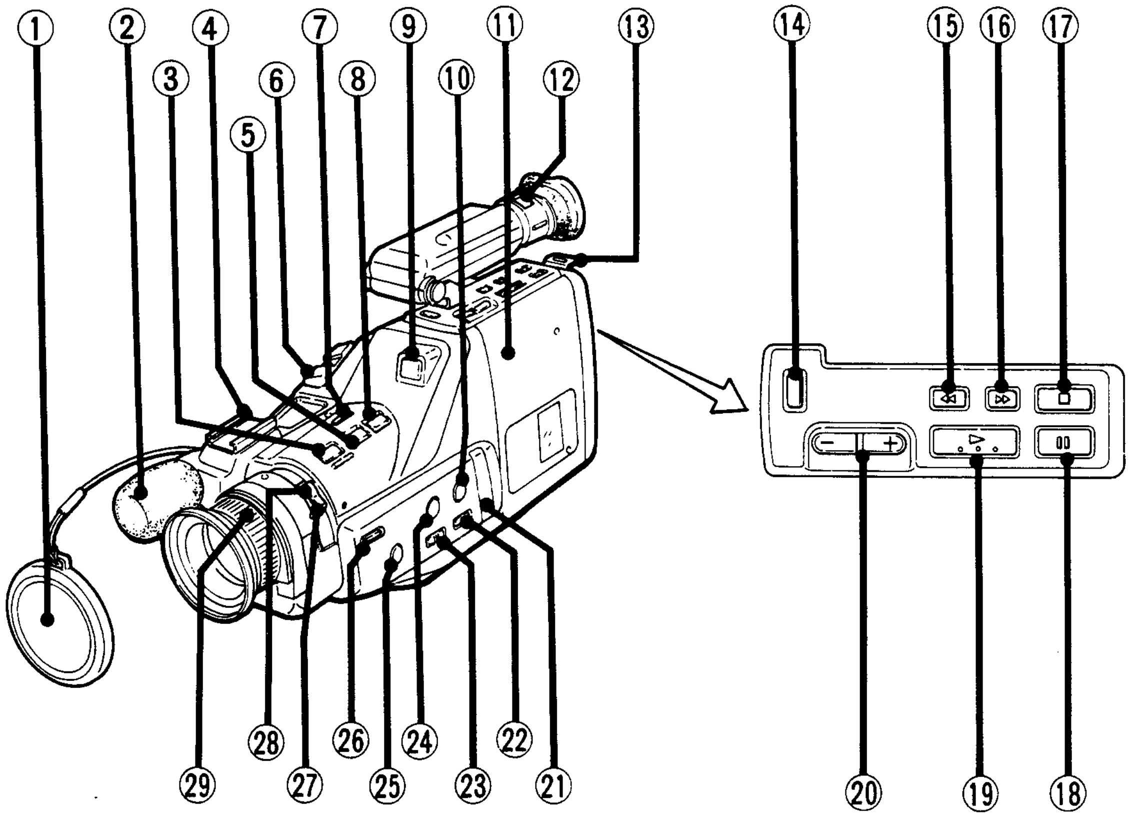




No.	Name
㉖	Viewfinder
㉗	Battery holder
㉘	REC START/STOP button
㉙	Lens cap snap
㉚	EARPHONE jack
㉛	EJECT switch
㉜	POWER switch and lamp
㉝	REC/PAUSE lamp
㉞	RESET button
㉟	REC MODE/EDIT switch

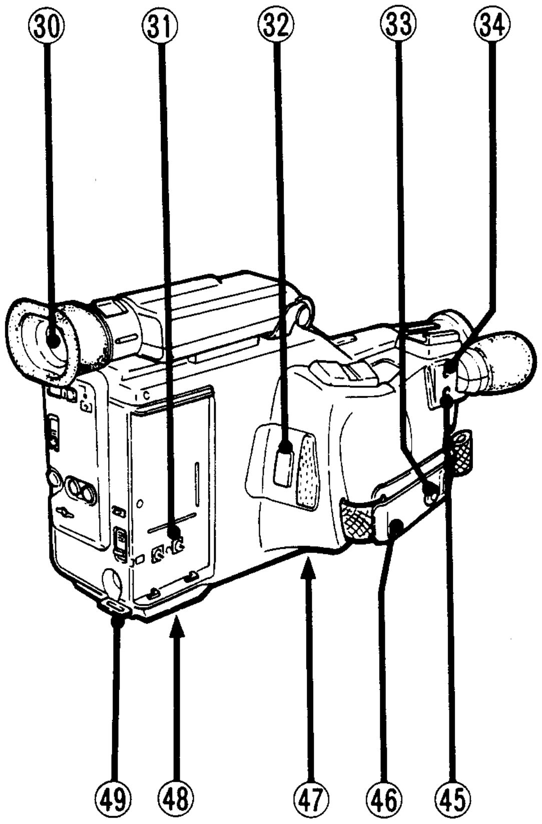
No.	Name
㊱	Battery eject lever
㊲	AUDIO • VIDEO terminal
㊳	MEMORY button
㊴	DATE ADJ button
㊵	DATE ON/OFF button
㊶	EXT. MIC jack
㊷	Grip belt
㊸	Tripod screw mount
㊹	Lithium battery cover
㊺	Shouder belt hook

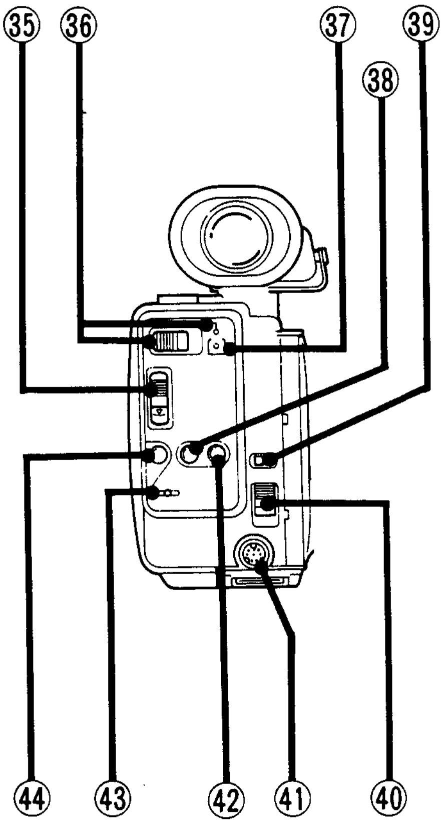
PART NAMES



No.	Name
①	Lens cap
②	Microphone
③	TITLE ON/OFF button
④	Accessory shoe
⑤	TITLE MEMO button
⑥	Power zoom button
⑦	TITLE PAGE button
⑧	TITLE COLOR button
⑨	White sensor
⑩	FADE button
⑪	Cassette holder
⑫	Eyesight compensation lever
⑬	Shoulder belt hook
⑭	REC button
⑮	REW button

No.	Name
⑯	FF button
⑰	STOP button
⑱	STILL button
⑲	PLAY button
⑳	SCENE SEARCH button
㉑	Infrared remote sensor (REC/PAUSE lamp)
㉒	HIGH SPEED SHUTTER button
㉓	FOCUS switch
㉔	IRIS button
㉕	FOCUS REV button
㉖	CLOSE UP button
㉗	Zoom lever
㉘	MACRO STOPPER button
㉙	Focus ring

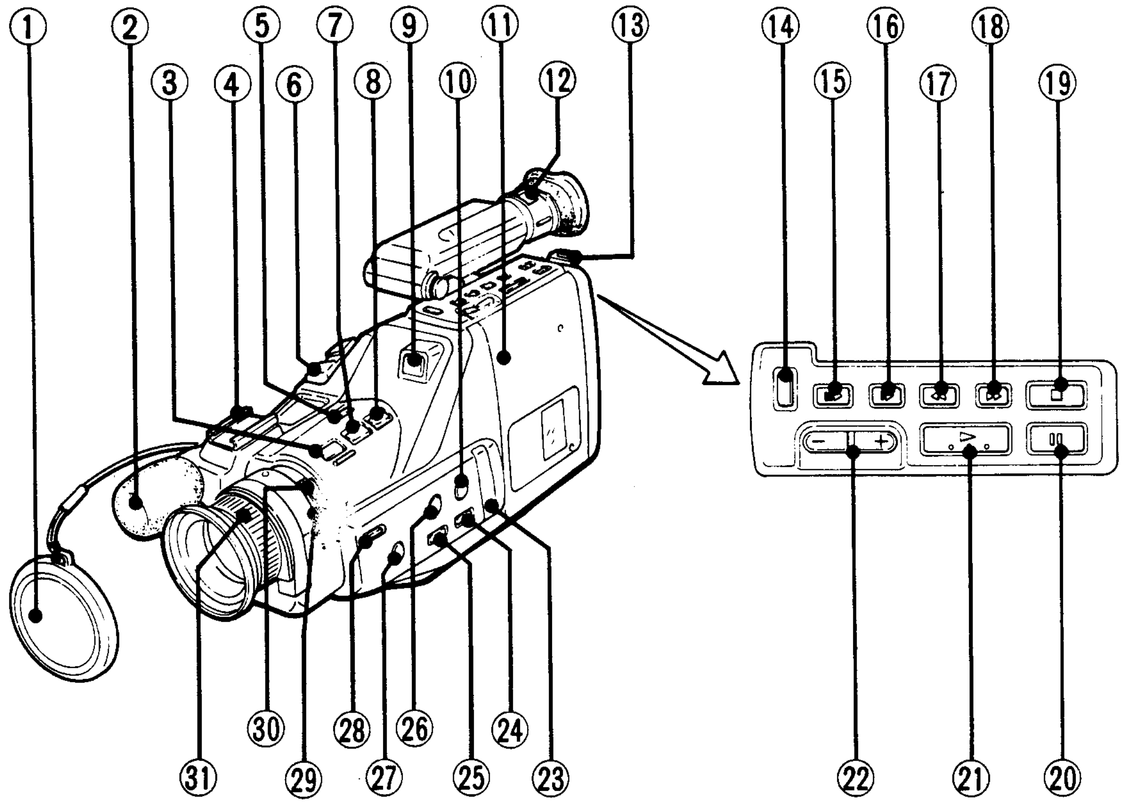




No.	Name
㉚	Viewfinder
㉛	Battery holder
㉜	REC START/STOP button
㉝	Lens cap snap
㉞	EARPHONE jack
㉟	EJECT switch
㊱	POWER switch and lamp
㊲	REC/PAUSE lamp
㊳	RESET button
㊴	REC MODE/EDIT switch

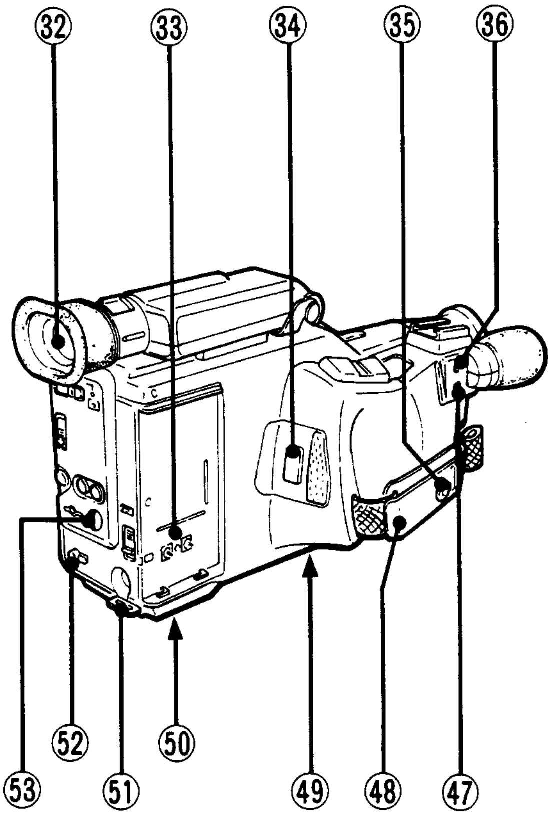
No.	Name
㊵	Battery eject lever
㊶	AUDIO • VIDEO terminal
㊷	MEMORY button
㊸	DATE ADJ button
㊹	DATE ON/OFF button
㊺	EXT. MIC jack
㊻	Grip belt
㊼	Tripod screw mount
㊽	Lithium battery cover
㊾	Shouder belt hook

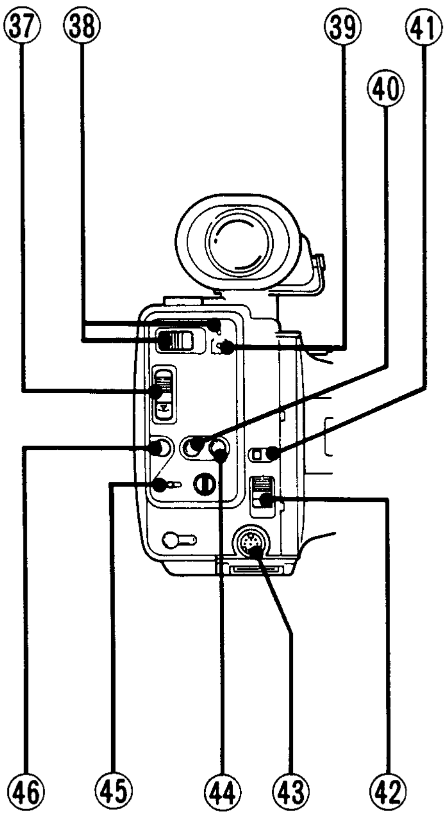
PART NAMES



No.	Name
①	Lens cap
②	Microphone
③	TITLE ON/OFF button
④	Accessory shoe
⑤	TITLE PAGE button
⑥	Power zoom button
⑦	TITLE MEMO button
⑧	TITLE COLOR button
⑨	White sensor
⑩	FADE button
⑪	Cassette holder
⑫	Eyesight compensation lever
⑬	Shoulder belt hook
⑭	REC button
⑮	F.ADV button

No.	Name
⑯	SLOW button
⑰	REW button
⑱	FF button
⑲	STOP button
⑳	PAUSE/STILL button
㉑	PLAY button
㉒	SCENE SEARCH button
㉓	Infrared remote sensor (REC/PAUSE lamp)
㉔	HIGH SPEED SHUTTER button
㉕	FOCUS switch
㉖	**IRIS button (IRIS control knob)**
㉗	FOCUS REV button
㉘	CLOSE UP button
㉙	Zoom lever
㉚	MACRO STOPPER button
㉛	Focus ring

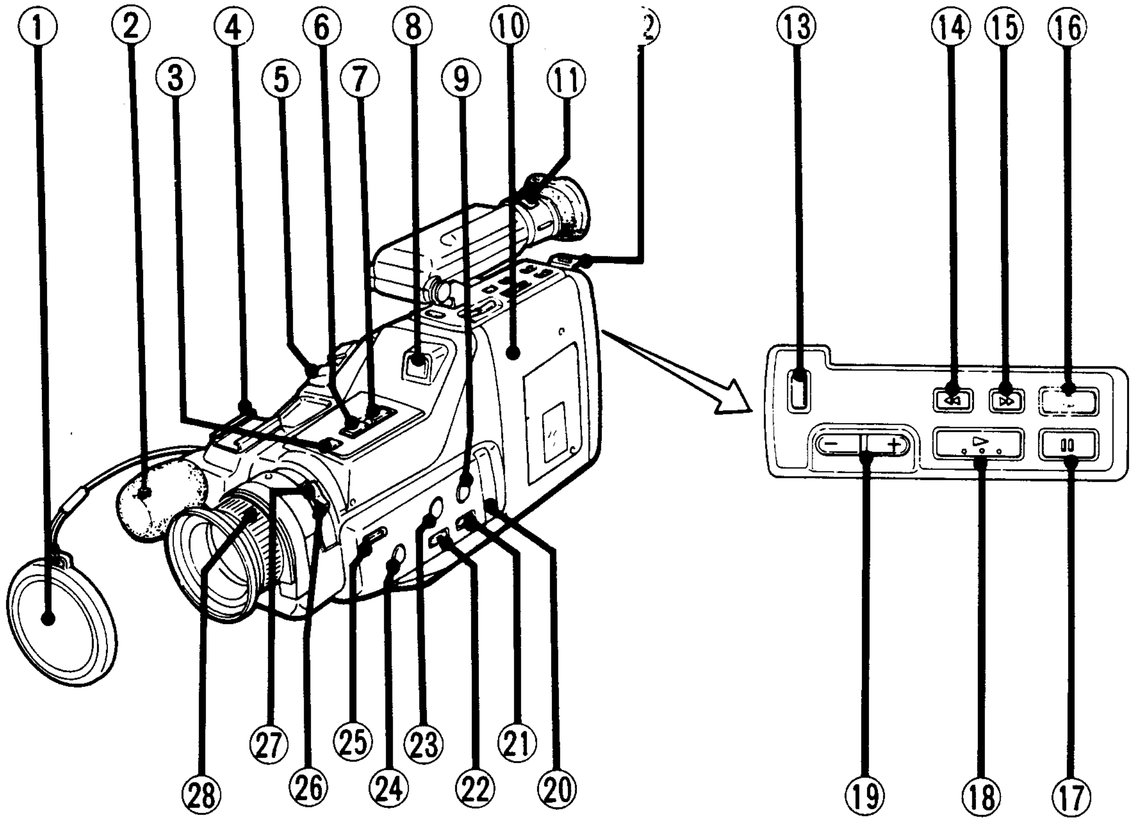




No.	Name
㉜	Viewfinder
㉝	Battery holder
㉞	REC START/STOP button
㉟	Lens cap snap
㊱	EARPHONE jack
㊲	EJECT switch
㊳	POWER switch and lamp
㊴	REC/PAUSE lamp
㊵	RESET button
㊶	REC MODE/EDIT switch
㊷	Battery eject lever

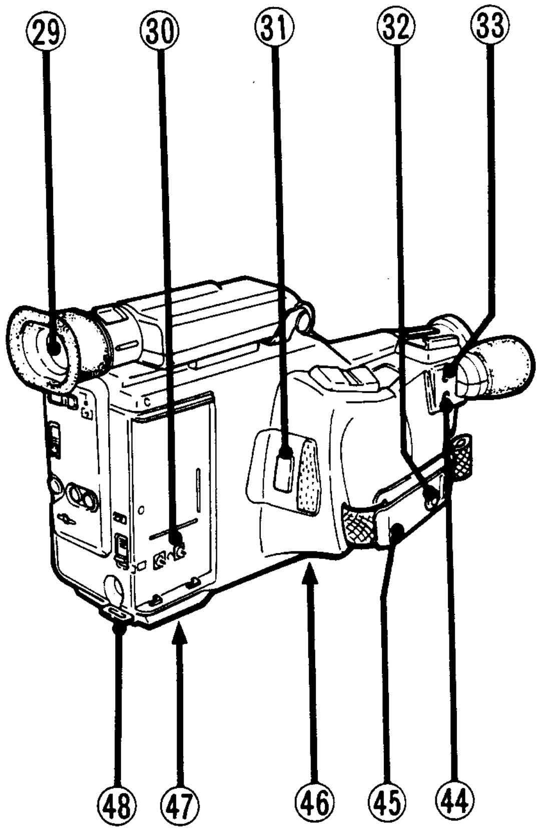
No.	Name
㊸	AUDIO • VIDEO terminal
㊹	MEMORY button
㊺	DATE ADJ button
㊻	DATE ON/OFF button
㊼	EXT. MIC jack
㊽	Grip belt
㊾	Tripod screw mount
㊿	Lithium battery cover
(51)	Shouder belt hook
(52)	Still adjustment hole
(53)	Slow tracking knob

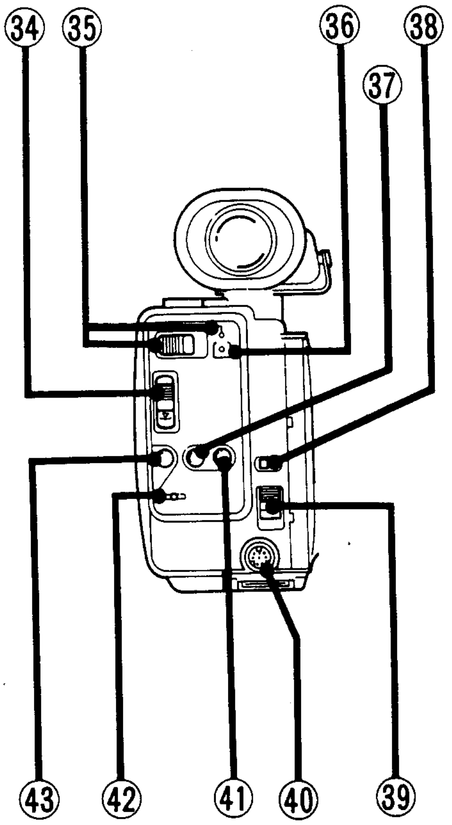
PART NAMES



No.	Name
①	Lens cap
②	Microphone
③	TITLE ON/OFF button
④	Accessory shoe
⑤	Power zoom button
⑥	TITLE MEMO button
⑦	TITLE COLOR button
⑧	White sensor
⑨	FADE button
⑩	Cassette holder
⑪	Eyesight compensation lever
⑫	Shoulder belt hook
⑬	REC button
⑭	REW button

No.	Name
⑮	FF button
⑯	STOP button
⑰	STILL button
⑱	PLAY button
⑲	SCENE SEARCH button
⑳	Infrared remote sensor (REC/PAUSE lamp)
㉑	HIGH SPEED SHUTTER button
㉒	FOCUS switch
㉓	IRIS button
㉔	FOCUS REV button
㉕	CLOSE UP button
㉖	Zoom lever
㉗	MACRO STOPPER button
㉘	Focus ring

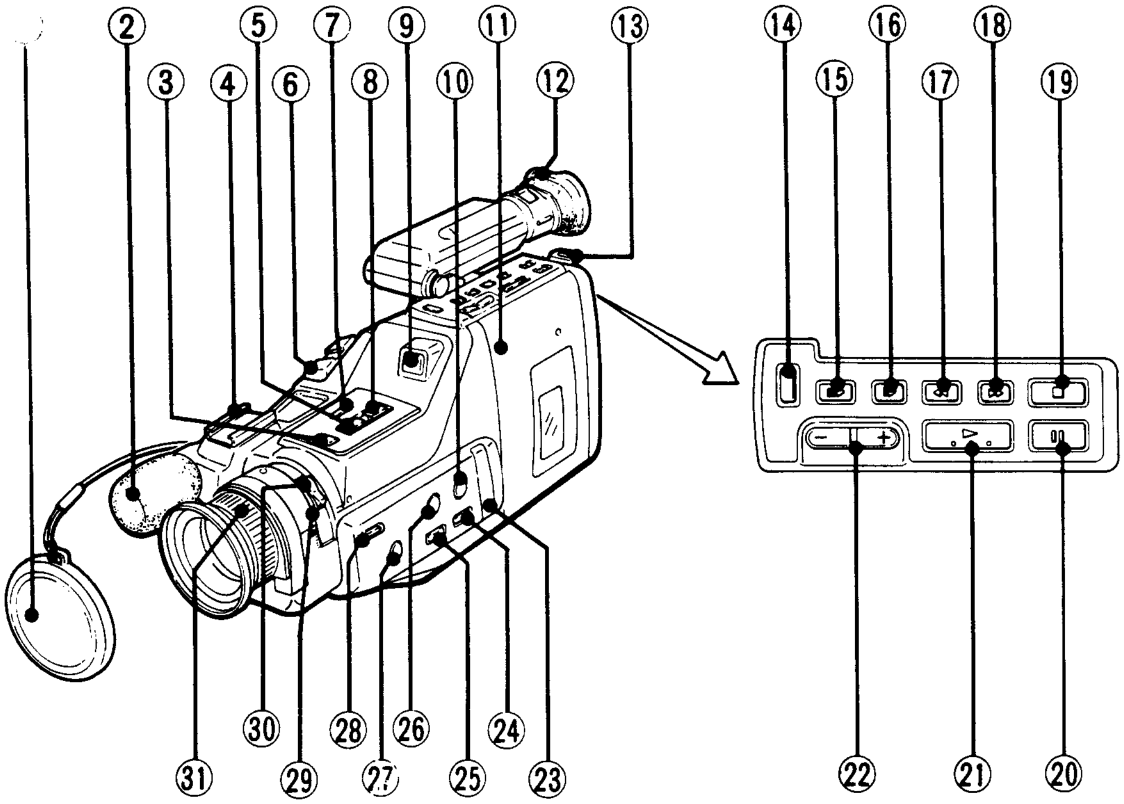




No.	Name
㉙	Viewfinder
㉚	Battery holder
㉛	REC START/STOP button
㉜	Lens cap snap
㉝	EARPHONE jack
㉞	EJECT switch
㉟	POWER switch and lamp
㊱	REC/PAUSE lamp
㊲	RESET button
㊳	REC MODE/EDIT switch

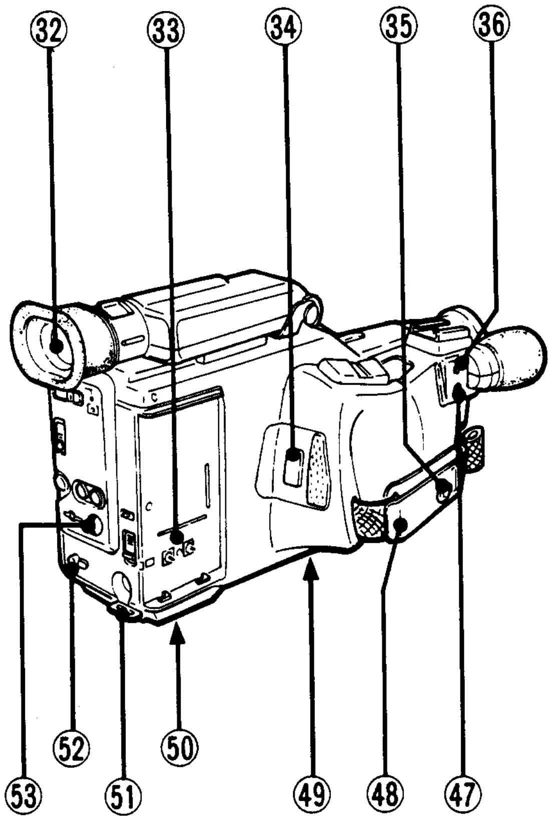
No.	Name
㊴	Battery eject lever
㊵	AUDIO · VIDEO terminal
㊶	MEMORY button
㊷	DATE ADJ button
㊸	DATE ON/OFF button
㊹	EXT. MIC jack
㊺	Grip belt
㊻	Tripod screw mount
㊼	Lithium battery cover
㊽	Shouder belt hook

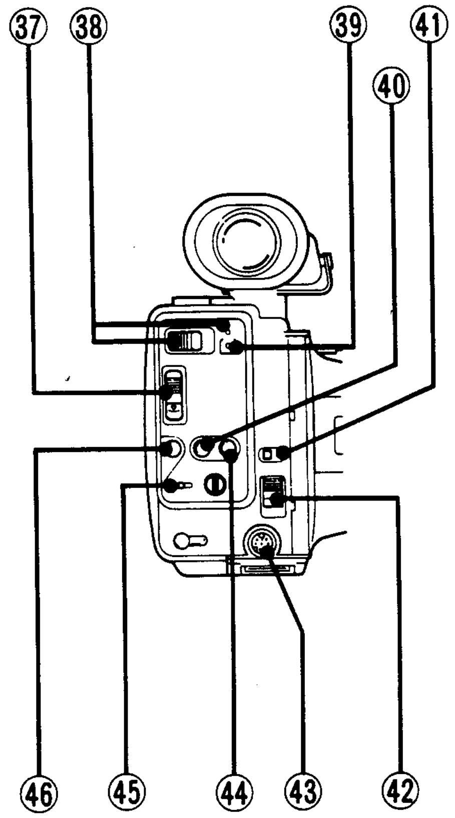
PART NAMES



No.	Name
①	Lens cap
②	Microphone
③	TITLE ON/OFF button
④	Accessory shoe
⑤	TITLE MEMO button
⑥	Power zoom button
⑦	TITLE PAGE button
⑧	TITLE COLOR button
⑨	White sensor
⑩	FADE button
⑪	Cassette holder
⑫	Eyesight compensation lever
⑬	Shoulder belt hook
⑭	REC button
⑮	F.ADV button

No.	Name
⑯	SLOW button
⑰	REW button
⑱	FF button
⑲	STOP button
⑳	STILL button
㉑	PLAY button
㉒	SCENE SEARCH button
㉓	Infrared remote sensor (REC/PAUSE lamp)
㉔	HIGH SPEED SHUTTER button
㉕	FOCUS switch
㉖	IRIS button
㉗	FOCUS REV button
㉘	CLOSE UP button
㉙	Zoom lever
㉚	MACRO STOPPER button
㉛	Focus ring





No.	Name
㉜	Viewfinder
㉝	Battery holder
㉞	REC START/STOP button
㉟	Lens cap snap
㊱	EARPHONE jack
㊲	EJECT switch
㊳	POWER switch and lamp
㊴	REC/PAUSE lamp
㊵	RESET button
㊶	REC MODE/EDIT switch
㊷	Battery eject lever

No.	Name
㊸	AUDIO • VIDEO terminal
㊹	MEMORY button
㊺	DATE ADJ button
㊻	DATE ON/OFF button
㊼	EXT. MIC jack
㊽	Grip belt
㊾	Tripod screw mount
㊿	Lithium battery cover
(51)	Shouder belt hook
(52)	Still adjustment hole
(53)	Slow tracking knob

2. DISASSEMBLY

2-1. REMOVAL OF CASSETTE LID, CABINET (LEFT)

1) Remove the two screws ①, and the cassette lid ②.
2) Remove the screw ③, and the plate spring ④.
3) Remove the screw ⑤, and the accessory shoe ⑥.
4) Remove the two screws ⑦, rotate the manual zoom lever fully to the wide range position to remove the mic cover ⑧ and the lens cover ⑨.
5) Remove the screws ⑩ and ⑪, and the TOP cabinet ⑫.
6) Remove the screw ⑬ the four screws ⑭ securing the cabinet (left), and remove the cabinet (left) ⑮.

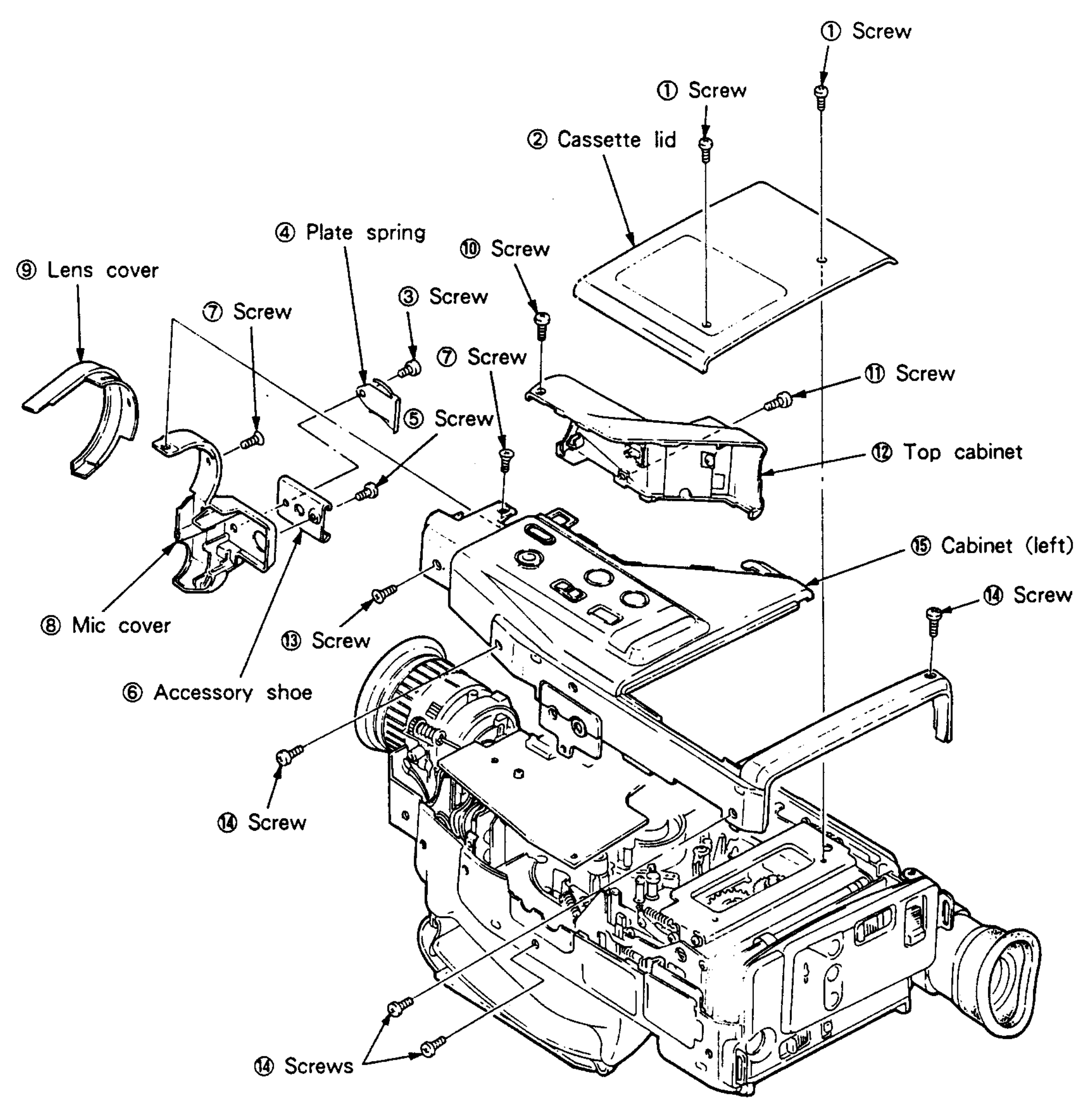

① Screw
① Screw
② Cassette lid
④ Plate spring
⑩ Screw
⑨ Lens cover
③ Screw
⑦ Screw
⑦ Screw
⑪ Screw
⑤ Screw
⑫ Top cabinet
⑮ Cabinet (left)
⑭ Screw
⑧ Mic cover
⑬ Screw
⑥ Accessory shoe
⑭ Screw
⑭ Screws

Fig. 2-1.

2-2. REMOVAL OF CAMERA SECTION ASSEMBLY

1) Remove the microphone ①.
2) Remove the screw ② and ③ securing the camera block, and remove the FPC ④ connecting between the DM1 board and VTR block (SY2 board).
3) Lift up the camera block assembly ⑤ a little, and remove the four connectors from the VTR block.
   (Before removing, take notes of the connected positions.)
4) Separate the camera block assembly ⑤ completely.

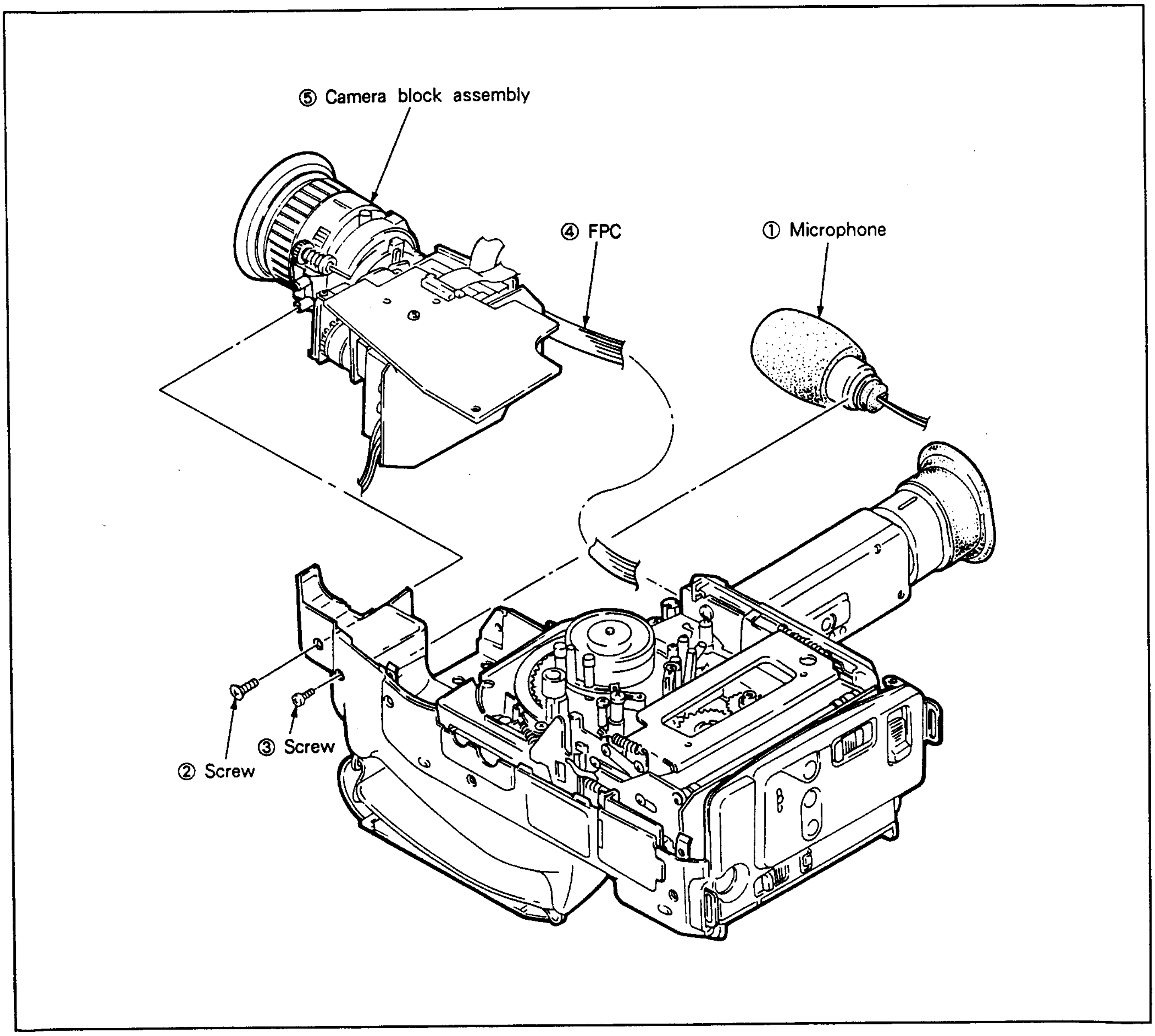

⑤ Camera block assembly
④ FPC
① Microphone
③ Screw
② Screw

Fig. 2-2.

2-3. REMOVAL OF VTR BLOCK ASSEMBLY AND CABINET (RIGHT)

1) Remove the two screws ① securing the viewfinder block assembly.
2) Remove the connector ② connecting between the viewfinder block assembly and VTR block assembly to separate the viewfinder block assembly ③.
3) Remove the two screws ④ and the screw ⑤, ⑥.
4) Remove the lithium battery holder ⑦.
5) Remove the two screws ⑧ and screw ⑨ securing the VTR block.
6) Remove the connector ⑪ connected to the TB1 board by lifting up the VTR block assembly ⑩, and separate from cabinet (right) ⑫ completely.

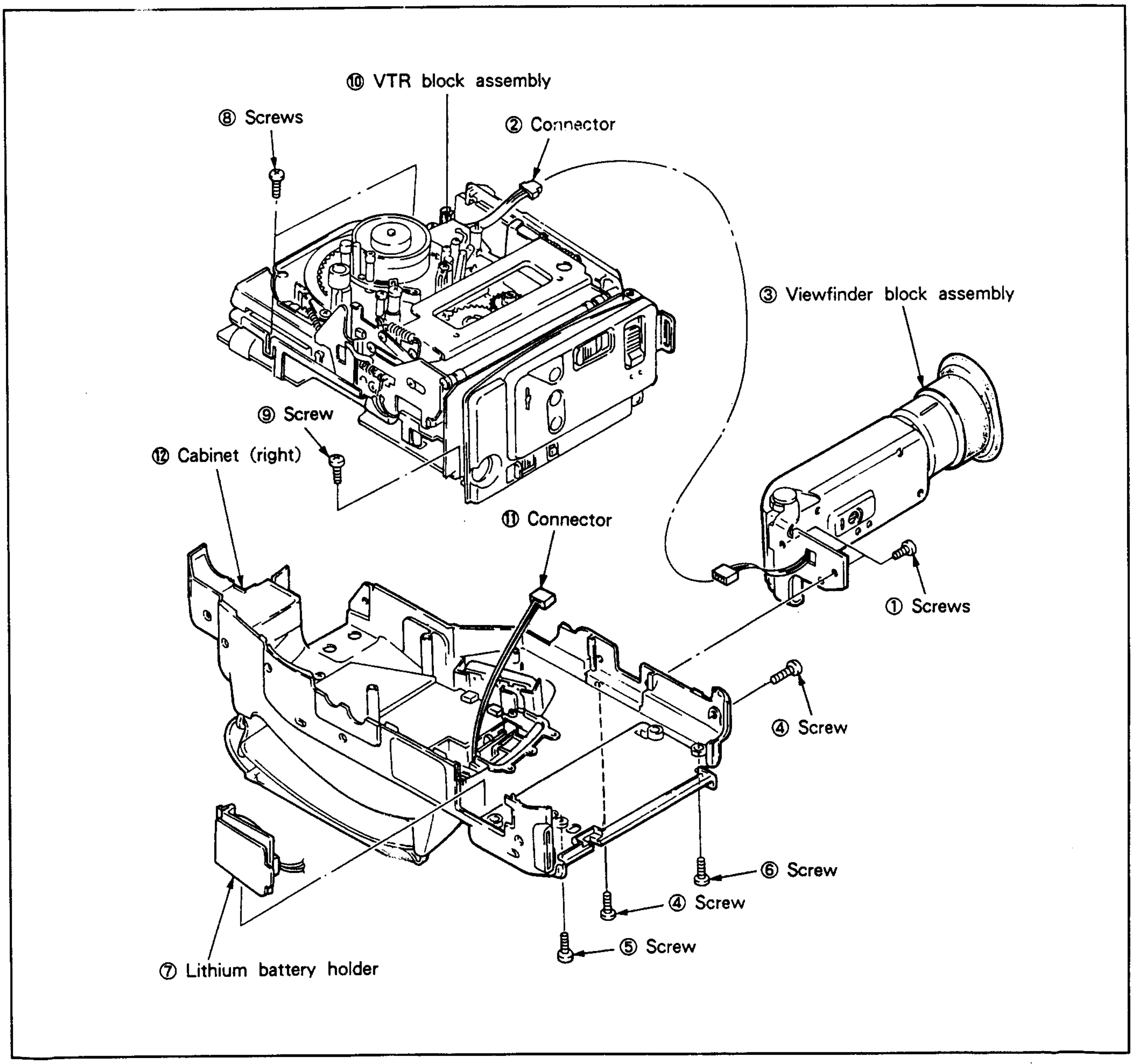

⑩ VTR block assembly
⑧ Screws
② Connector
③ Viewfinder block assembly
⑨ Screw
⑫ Cabinet (right)
⑪ Connector
① Screws
④ Screw
⑥ Screw
④ Screw
⑤ Screw
⑦ Lithium battery holder

Fig. 2-3.

2-4. REMOVAL OF VTR OPERATION PANEL AND BACK OPERATION PANEL

1) Remove the VTR operation panel ① from the back operation panel ②.
2) Remove the back operation panel ② from the VTR block.

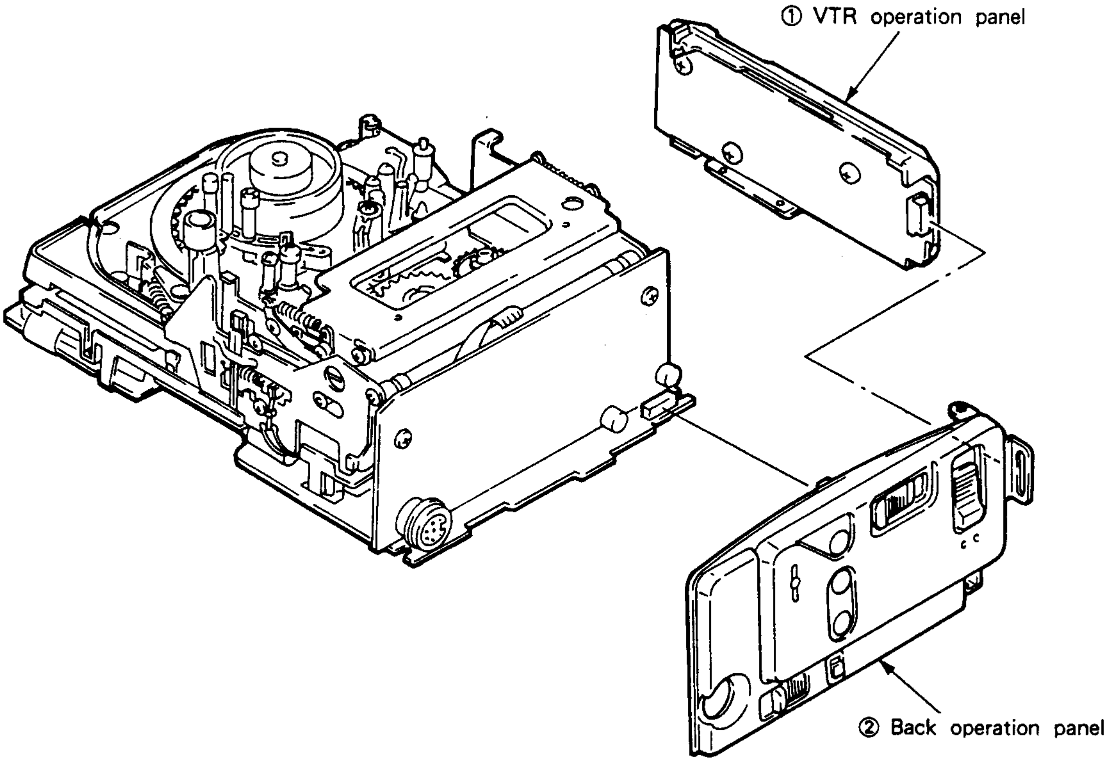
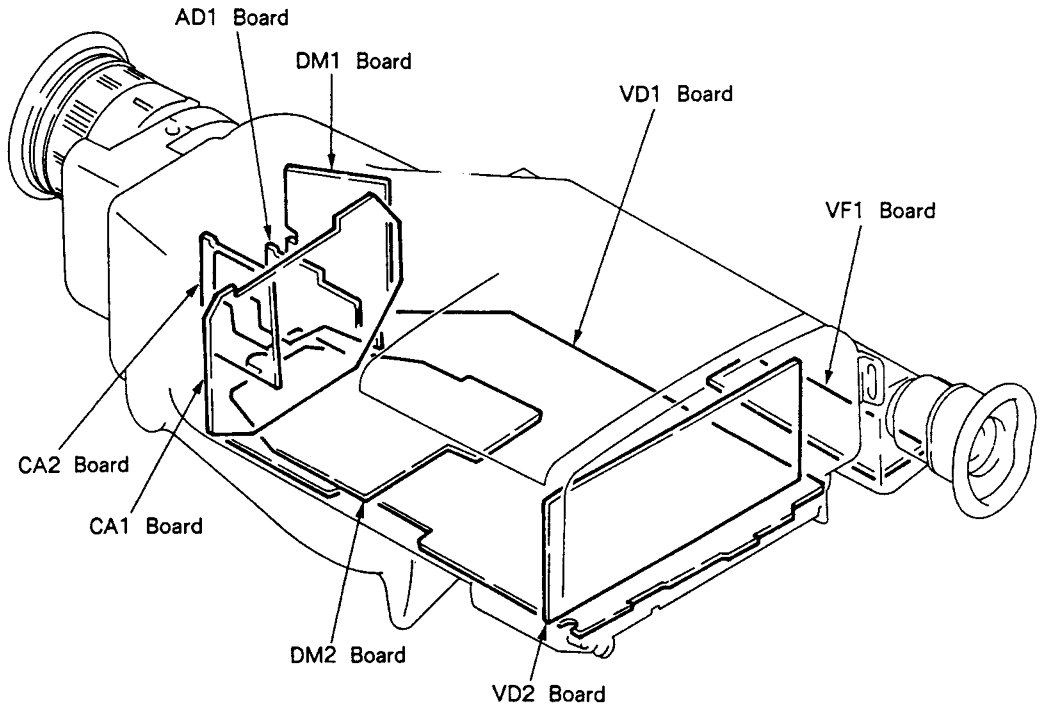
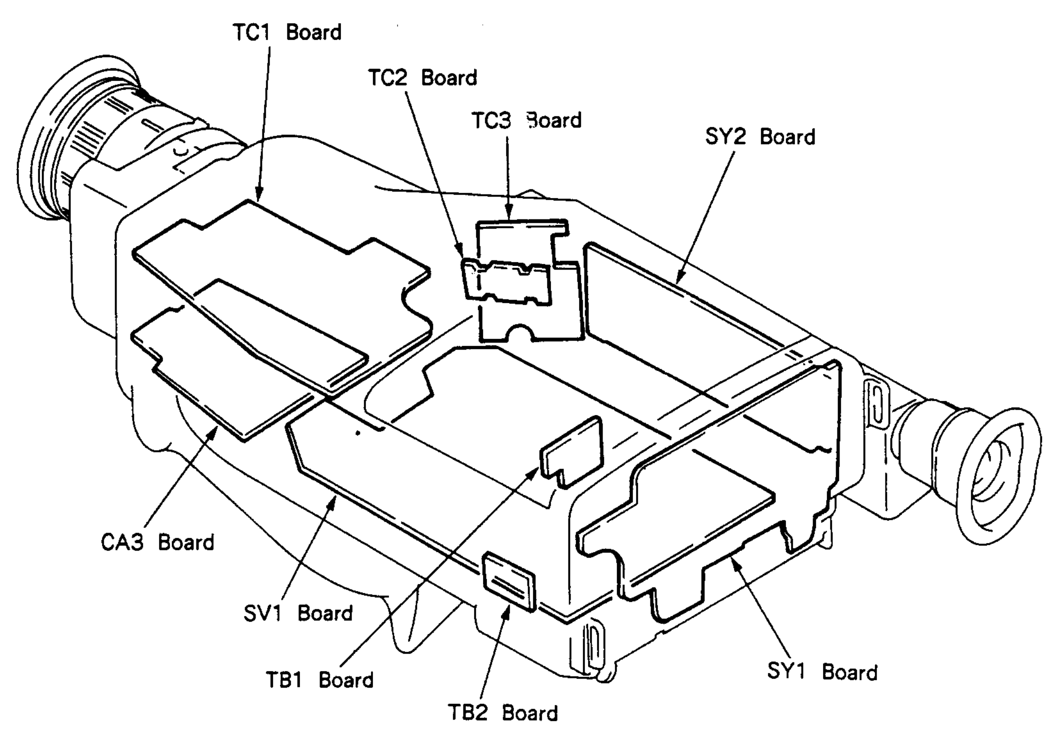

① VTR operation panel
② Back operation panel

Fig. 2-4.

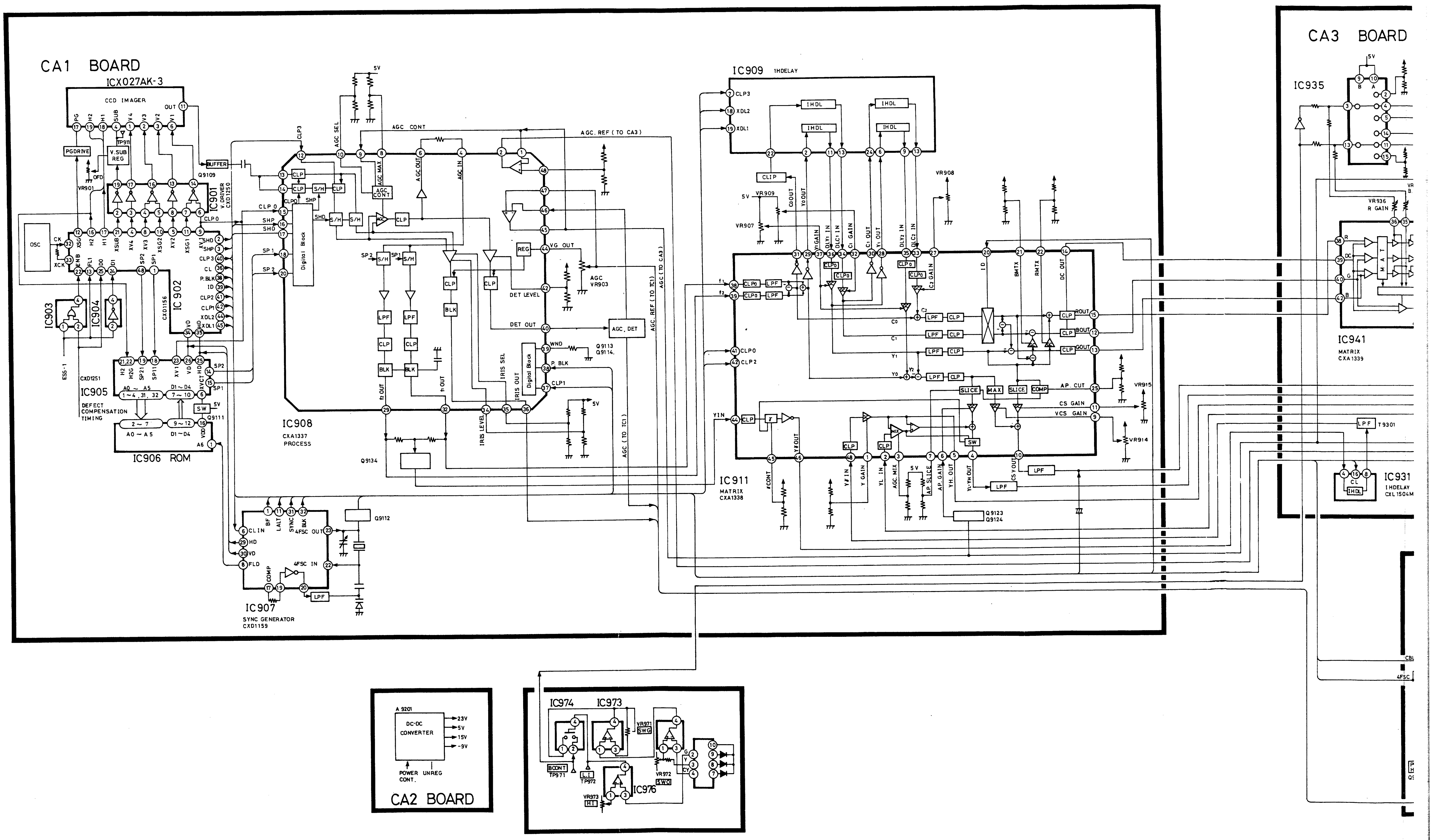
3. BLOCK DIAGRAM

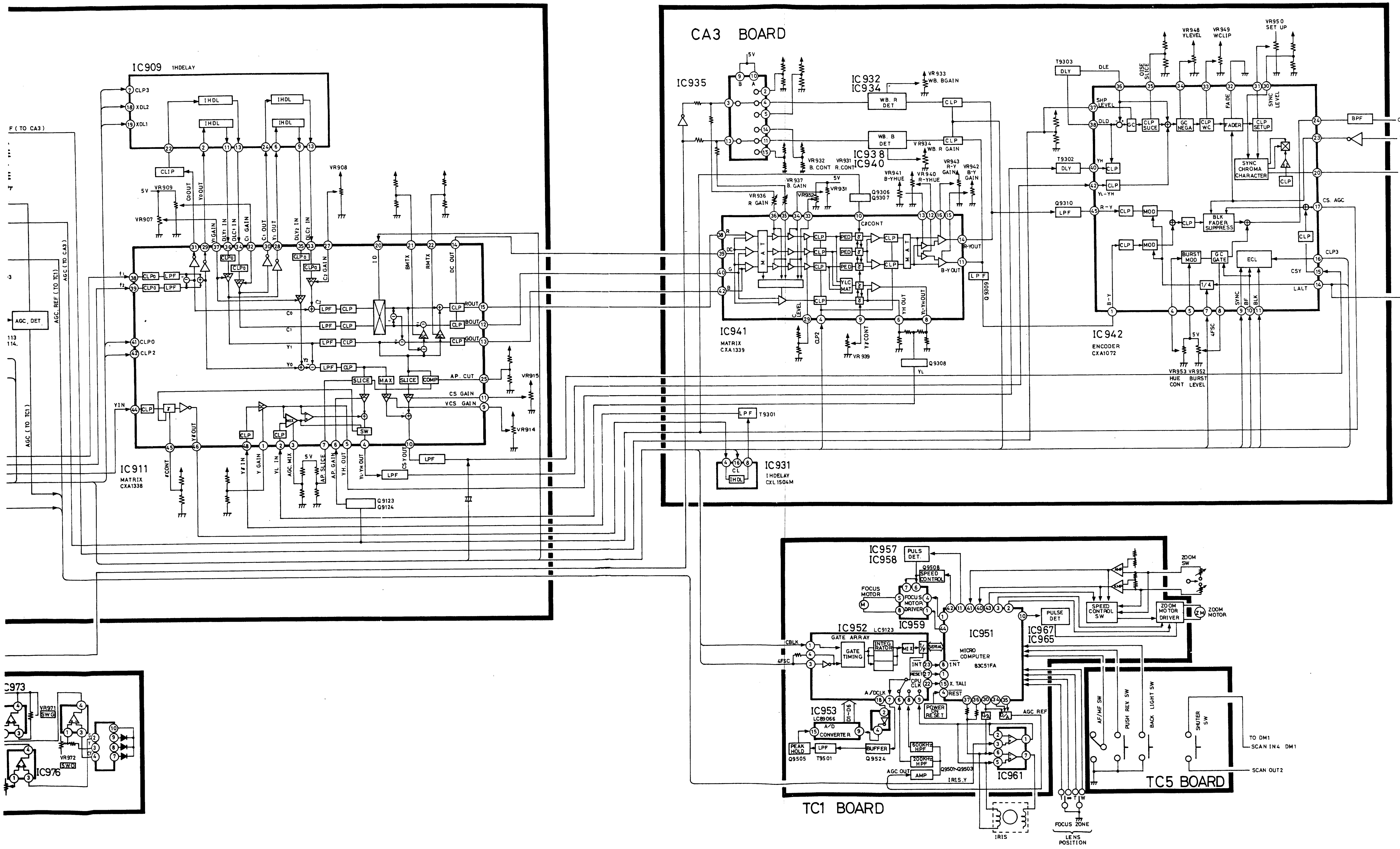
3-1. BOARD LOCATION


AD1 Board
DM1 Board
VD1 Board
VF1 Board
CA2 Board
CA1 Board
DM2 Board
VD2 Board

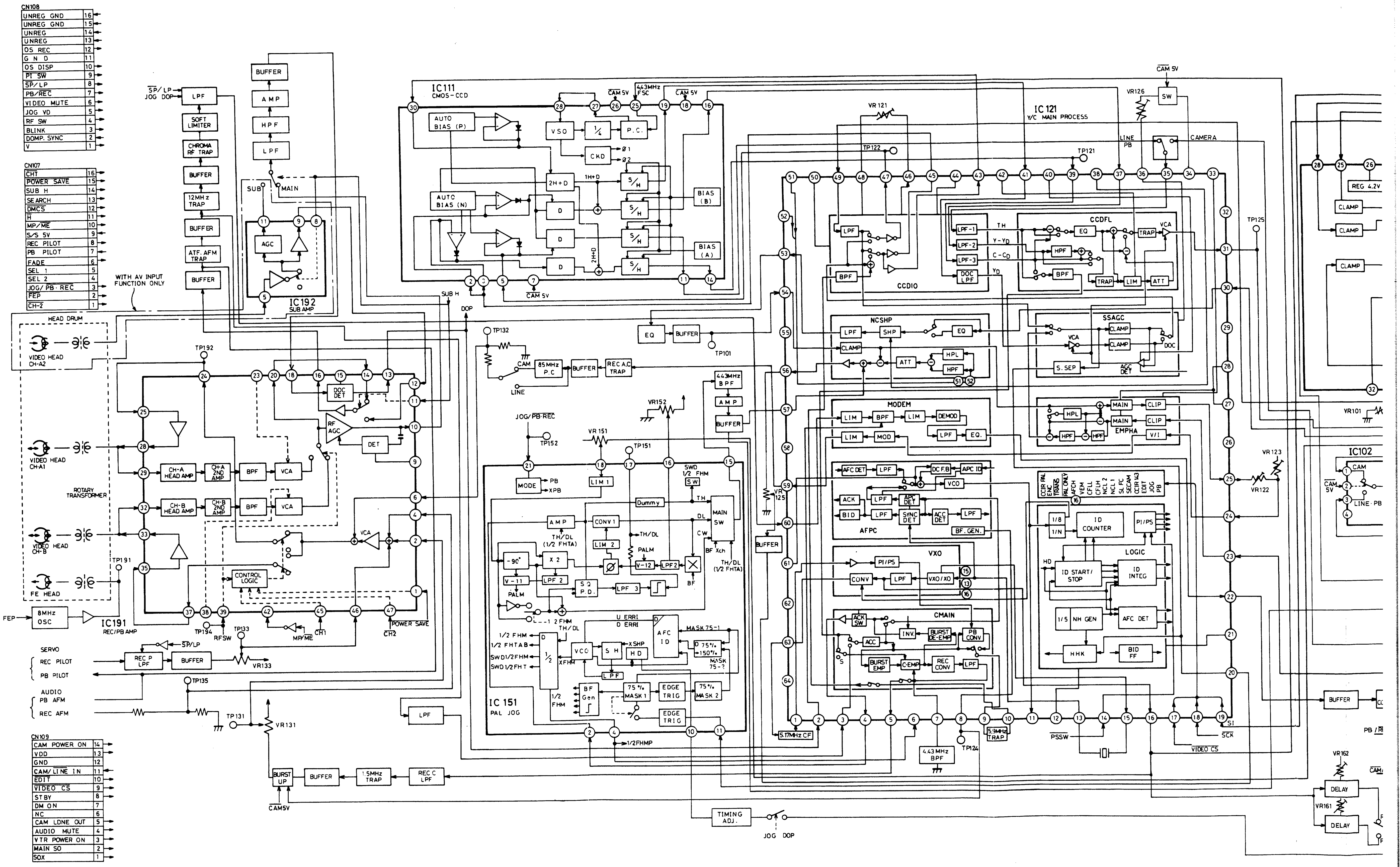

TC1 Board
TC2 Board
TC3 Board
SY2 Board
CA3 Board
SV1 Board
TB1 Board
TB2 Board
SY1 Board

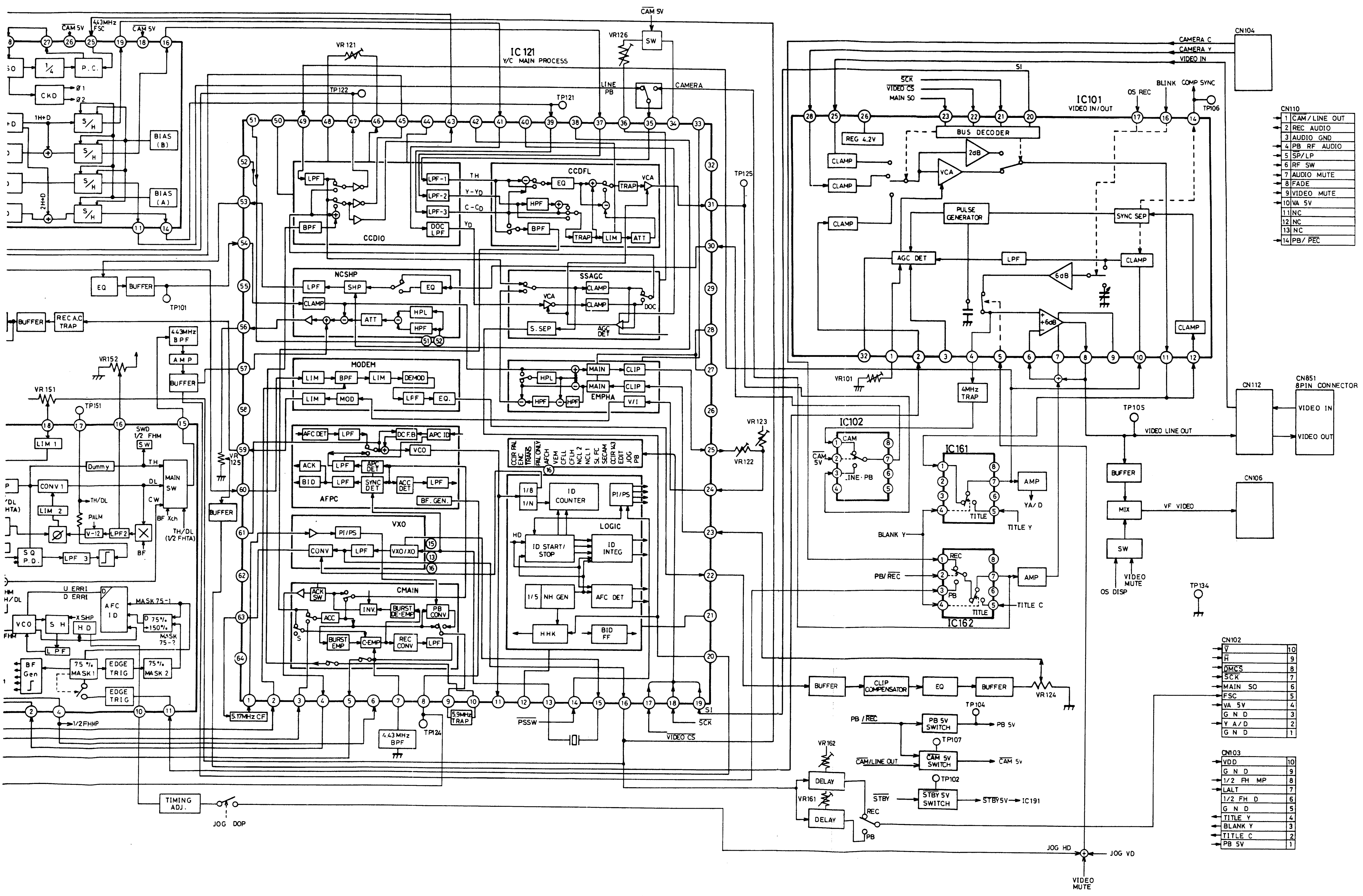
3-2. CAMERA BLOCK


CA1 BOARD
ICX027AK-3
CCD IMAGER
OUT
PG H2 H1 SUB V4 V3 V2 V1
PGDRIVE
V.SUB REG
TP911
OFD
VR901
BUFFER
Q9109
IC901
V.DRIVER
CXD1250
OSC
CK
XCK
XSG
ENB
FL1
D0
D1
SP2
SP1
CXD1156
IC902
CLP0
SHD
SHP
CLP3
CL
P.BLK
ID
CLP2
CLP1
XDL2
XDL1
VD
IC903
IC904
ESS-1
CXD1251
IC905
DEFECT COMPENSATION TIMING
A0 ~ A5
1~4, 31, 32
D1 ~ D4
7 ~ 10
2 ~ 7
9 ~ 12
SW
Q9111
A6
VDD
IC906 ROM
5V
AGC CONT
AGC SEL
AGC MAX
AGC OUT
AGC IN
AGC. REF (TO CA3)
CLP
S/H
Digital Block
AGC CONT
REG
VG OUT
DET LEVEL
DET OUT
AGC, DET
AGC VR903
WND
Q9113
Q9114
P. BLK
CLP1
IRIS SEL
IRIS OUT
IRIS LEVEL
LPF
BLK
f1 OUT
f2 OUT
IC908
CXA1337
PROCESS
Q9134
AGC REF (TO TC1)
AGC (TO CA3)
AGC (TO TC1)
CLIN
HD
VD
FLD
BF
LALT
SYNC
BLK
4FSC OUT
4FSC IN
COMP
Q9112
IC907
SYNC GENERATOR
CXD1159
IC909 1HDELAY
CLP3
XDL2
XDL1
1HDL
CLIP
VR909
VR907
VR908
C0OUT
Y0OUT
Y1GAIN
DLY1 IN
DLC1 IN
C1 GAIN
C1 OUT
Y1 OUT
DLY2 IN
DLC2 IN
C2 GAIN
ID
BMTX
RMTX
DC OUT
CLP0
CLP2
ROUT
BOUT
GOUT
C0
C1
C2
Y0
Y1
Y2
SLICE
MAX
COMP
AP CUT
CS GAIN
VCS GAIN
VR915
VR914
YIN
γ
MIX
SW
γCONT
Yγ OUT
Yγ IN
Y GAIN
YL IN
AGC MIX
AP SLICE
AP GAIN
YH OUT
YL-YH OUT
CS YOUT
Q9123
Q9124
IC911
MATRIX
CXA1338
CA3 BOARD
IC935
B A
VR936
R GAIN
R DC G B
M A T
IC941
MATRIX
CXA1339
LPF
T9301
IC931
1HDELAY
CXL1504M
CL
1HDL
4FSC
A 9201
DC-DC CONVERTER
23V
5V
15V
-9V
POWER CONT.
UNREG
CA2 BOARD
IC974
IC973
VR971
SWG
BCONT
TP971
L.I
TP972
VR972
SWD
VR973
H1
IC976
G
Y
CY


CA3 BOARD
TC1 BOARD
TC5 BOARD
IC909 1HDELAY
CLP3
XDL2
XDL1
1HDL
CLIP
VR909
VR907
VR908
IC911
MATRIX
CXA1338
F (TO CA3)
AGC. DET
AGC. REF (TO TC1)
AGC (TO CA3)
AGC (TO TC1)
CLPO
CLP2
YIN
ID
BMTX
RMTX
DC OUT
ROUT
BOUT
GOUT
AP. CUT
CS GAIN
VCS GAIN
SLICE
MAX
COMP
MIX
SW
LPF
CLP
Y# CONT
Y# IN
Y GAIN
YL IN
AGC. MIX
AP. SLICE
AP. GAIN
YH. OUT
YL-YH OUT
CS Y OUT
Q9123
Q9124
VR915
VR914
IC935
IC932
IC934
VR933
WB. BGAIN
WB. R DET
WB. B DET
VR934
WB. R GAIN
IC938
IC940
VR932
B. CONT
VR931
R. CONT
VR937
B. GAIN
VR936
R GAIN
VR941
B-YHUE
VR940
R-YHUE
VR943
R-Y GAIN
VR942
B-Y GAIN
Q9306
Q9307
C# CONT
PED
MAT
YLC MAT
R-YOUT
B-Y OUT
LEVEL
CLP2
YH OUT
YL-YH OUT
IC941
MATRIX
CXA1339
VR939
Q9308
YL
Q9309
LPF
T9301
IC931
1HDELAY
CXL1504M
CL
1HDL
T9303
DLY
DLE
T9302
Q9310
IC942
ENCODER
CXA1072
NOISE SLICE
VR948
YLEVEL
VR949
WCLIP
VR950
SET UP
FADE
SYNC LEVEL
SHP LEVEL
DLD
GC
CLP SLICE
GC NEGA
CLP WC
FADER
CLP SETUP
SYNC CHROMA CHARACTER
YH
YL-YH
R-Y
B-Y
MOD
BLK FADER SUPPRESS
BURST MOD
GC GATE
ECL
1/4
CS. AGC
CLP3
CSY
LALT
SYNC
BF
BLK
4FSC
5V
VR953
HUE CONT
VR952
BURST LEVEL
BPF
CAM. C
FADE
CAM. Y
LALT
IC957
IC958
PULS DET.
Q9508
SPEED CONTROL
FOCUS MOTOR
FOCUS MOTOR DRIVER
IC959
IC952 LC9123
GATE ARRAY
GATE TIMING
INTEG RATOR
MIX
SERIAL
CBLK
4FSC
IC951
MICRO COMPUTER
83C51FA
INT
RESET
CPU CLK
X. TAL1
REST
A/DCLK
IC953
LC89066
A/D CONVERTER
PEAK HOLD
Q9505
LPF
T9501
BUFFER
Q9524
POWER ON RESET
600KHz HPF
200KHz HPF
AGC OUT
AMP
Q9501~Q9503
IRIS.Y
IC961
AGC REF
IRIS
FOCUS ZONE
LENS POSITION
PULSE DET
IC967
IC965
SPEED CONTROL SW
ZOOM MOTOR DRIVER
ZOOM MOTOR
ZOOM SW
AF/MF SW
PUSH REV SW
BACK LIGHT SW
SHUTER SW
TO DM1
SCAN IN4 DM1
SCAN OUT2
IC973
VR971
SWG
VR972
SWO
IC976
113
114.

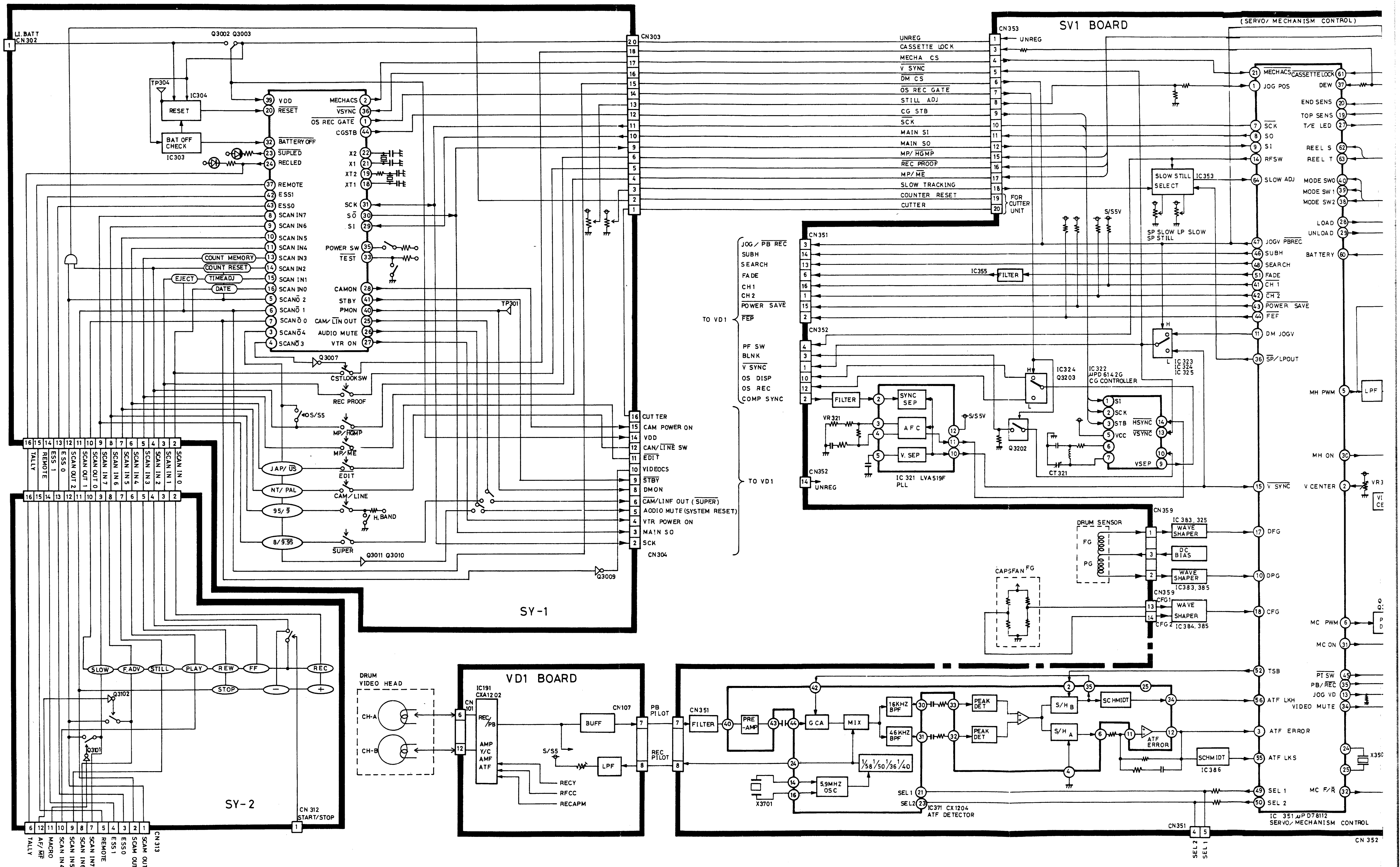
3-3. VIDEO BLOCK


CN108
UNREG GND 16
UNREG GND 15
UNREG 14
UNREG 13
OS REC 12
G N D 11
OS DISP 10
PT SW 9
SP/LP 8
PB/REC 7
VIDEO MUTE 6
JOG VD 5
RF SW 4
BLINK 3
DOMP. SYNC 2
V 1
CN107
CHT 16
POWER SAVE 15
SUB H 14
SEARCH 13
DMCS 12
H 11
MP/ME 10
S/S 5V 9
REC PILOT 8
PB PILOT 7
FADE 6
SEL 1 5
SEL 2 4
JOG/PB·REC 3
FEP 2
CH-2 1
WITH AV INPUT FUNCTION ONLY
CN109
CAM POWER ON 14
VDD 13
GND 12
CAM/LINE IN 11
EDIT 10
VIDEO CS 9
STBY 8
DM ON 7
NC 6
CAM LDNE OUT 5
AUDIO MUTE 4
VTR POWER ON 3
MAIN SO 2
SOX 1
HEAD DRUM
VIDEO HEAD CH-A2
VIDEO HEAD CH-A1
ROTARY TRANSFORMER
VIDEO HEAD CH-B
FE HEAD
FEP
8MHz OSC
IC191
REC/PB AMP
IC192
SUB AMP
SP/LP
JOG DOP
LPF
SOFT LIMITER
CHROMA RF TRAP
BUFFER
12MHz TRAP
ATF, AFM TRAP
AMP
HPF
SUB
MAIN
AGC
TP192
DOC DET
RF AGC
DET
CH-A HEAD AMP
CH-A 2ND AMP
CH-B HEAD AMP
CH-B 2ND AMP
BPF
VCA
CONTROL LOGIC
TP191
TP194
RFSW
TP133
MP/ME
CH1
CH2
POWER SAVE
SERVO
REC PILOT
PB PILOT
AUDIO
PB AFM
REC AFM
REC P LPF
VR133
TP135
TP131
VR131
BURST UP
1.5MHz TRAP
REC C LPF
CAM5V
IC111
CMOS-CCD
AUTO BIAS (P)
AUTO BIAS (N)
VSO
1/4
P.C.
CKD
Ø1
Ø2
2H+D
1H+D
S/H
D
2H+D
BIAS (B)
BIAS (A)
CAM 5V
4.43MHz FSC
SUB H
DOP
TP132
CAM
LINE
85MHz P.C
REC A.C TRAP
EQ
TP101
4.43MHz BPF
JOG/PB-REC
TP152
VR151
TP151
VR152
IC151
PAL JOG
MODE
PB
XPB
LIM 1
SWD 1/2 FHM
SW
TH
DL
CW
Dummy
MAIN SW
AMP
CONV 1
TH/DL (1/2 FHTA)
LIM 2
PALM
-90°
X 2
V-11
LPF 2
SQ P.D.
LPF 3
V-12
LPF2
BF
BF Xch
TH/DL (1/2 FHTA)
1/2 FHM
TH/DL
U ERRI
D ERRI
AFC ID
MASK 75-1
1/2 FHM
1/2 FHTAB
SWD1/2FHM
SWD1/2FHT
1/2
VCO
XFHM
S H
XSHP
H D
75%
150%
MASK 75-2
LPF
BF Gen
75% MASK 1
EDGE TRIG
75% MASK 2
1/2 FHM
1/2FHMP
LPF
TIMING ADJ.
JOG DOP
IC121
Y/C MAIN PROCESS
VR121
TP122
TP121
LINE PB
CAMERA
CAM 5V
VR126
SW
CCDIO
CCDFL
LPF-1
LPF-2
LPF-3
DOC LPF
Y-YD
C-CD
YD
TRAP
LIM
ATT
HPF
NCSHP
SHP
CLAMP
HPL
SSAGC
S. SEP
AGC DET
MODEM
DEMOD
MOD
EQ.
MAIN
CLIP
EMPHA
V/I
AFC DET
DCFB
APC ID
ACK
APC DET
BID
SYNC DET
ACC DET
BF. GEN.
AFPC
VXO
PI/PS
CONV
VXO/XO
CMAIN
ACK SW
ACC
INV
BURST DE-EMP
PB CONV
BURST EMP
C-EMP
REC CONV
1/8
1/N
ID COUNTER
HD
LOGIC
ID START/STOP
ID INTEG
1/5 NH GEN
AFC DET
HHK
BID FF
CCIR PAL
ENC
TRAN3
PAL ONLY
AFCH
VEM
CFLH
NCL2
NCL1
SL PC
SECAM
CCIR/N3
EDIT
JOG
PB
VR 125
BUFFER
5.17MHz CF
5.9MHz TRAP
4.43MHz BPF
TP124
PSSW
SI
SCK
VIDEO CS
TP125
REG 4.2V
CLAMP
VR101
VR123
VR122
IC102
CAM
CAM 5V
LINE · PB
BUFFER
PB
VR162
VR161
DELAY
CAM

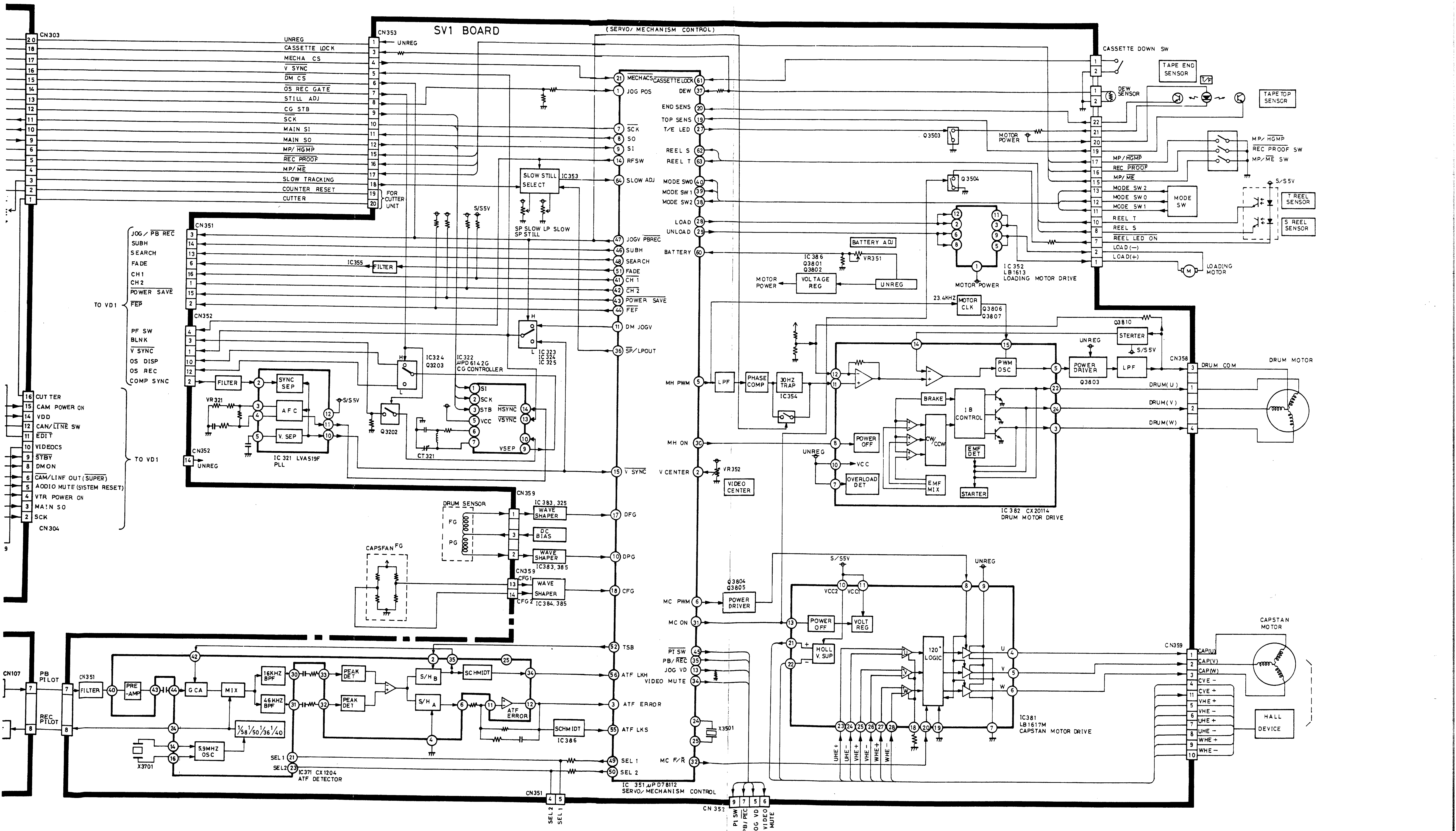


IC 121
Y/C MAIN PROCESS
IC101
VIDEO IN/OUT
CAM 5V
4.43MHz FSC
VR 121
VR126
SW
LINE
PB
CAMERA
TP122
TP121
TP125
TP101
TP151
TP124
TP105
TP106
TP134
TP104
TP107
TP102
CKD
P.C.
1/4
S/H
BIAS (B)
BIAS (A)
EQ
BUFFER
REC A.C. TRAP
4.43MHz BPF
AMP
VR152
VR151
VR125
VR123
VR122
VR101
VR124
VR162
VR161
LIM 1
Dummy
CONV 1
LIM 2
TH/DL
PALM
V-12
LPF2
MAIN SW
SWD 1/2 FHM
BF Xch
TH/DL (1/2 FHTA)
SQ P.D.
LPF 3
U ERRI
D ERRI
MASK 75-1
AFC ID
VCO
SH
HD
LPF
BF Gen
75% MASK 1
EDGE TRIG
75% MASK 2
1/2FHMP
TIMING ADJ.
JOG DOP
CCDIO
BPF
LPF-1
LPF-2
LPF-3
DOC LPF
TH
Y-YD
C-CD
YD
CCDFL
HPF
TRAP
LIM
ATT
VCA
NCSHP
SHP
CLAMP
HPL
SSAGC
S. SEP
AGC DET
DOC
MODEM
DEMOD
MOD
LFF
EQ.
MAIN
CLIP
EMPHA
V/I
AFC DET
DC F.B.
APC ID
ACK
BID
APC DET
SYNC DET
ACC DET
BF. GEN.
AFPC
CCIR PAL
ENG
PAL ONLY
AFCH
VEM
CFLL
CFLH
NCL 1
NCL 2
SL FC
SECAM
CCIR 4.43
EDIT
JOG
PB
1/8
1/N
ID COUNTER
PI/PS
LOGIC
ID START/STOP
ID INTEG
1/5
NH GEN
AFC DET
HHK
BID FF
VXO
CONV
VXO/XO
CMAIN
ACK SW
INV
ACC
BURST DE-EMP
PB CONV
BURST EMP
C-EMP
REC CONV
5.17MHz CF
4.43MHz BPF
5.9MHz TRAP
PSSW
SI
SCK
VIDEO CS
MAIN SO
REG 4.2V
BUS DECODER
2dB
6dB
+6dB
PULSE GENERATOR
SYNC SEP
AGC DET
OS REC
BLINK
COMP SYNC
4MHz TRAP
IC102
CAM
LINE·PB
IC161
IC162
TITLE
TITLE Y
TITLE C
YA/D
BLANK Y
PB/REC
REC
CAMERA C
CAMERA Y
VIDEO IN
CN104
CN110
1 CAM/LINE OUT
2 REC AUDIO
3 AUDIO GND
4 PB RF AUDIO
5 SP/LP
6 RF SW
7 AUDIO MUTE
8 FADE
9 VIDEO MUTE
10 VA 5V
11 NC
12 NC
13 NC
14 PB/REC
CN112
CN851 8PIN CONNECTOR
VIDEO IN
VIDEO OUT
VIDEO LINE OUT
MIX
VF VIDEO
CN106
VIDEO MUTE
OS DISP
CLIP COMPENSATOR
PB 5V SWITCH
PB 5V
CAM/LINE OUT
CAM 5V SWITCH
CAM 5V
STBY
STBY 5V SWITCH
STBY5V → IC191
DELAY
JOG HD
JOG VD
CN102
V 10
H 9
DMCS 8
SCK 7
MAIN SO 6
FSC 5
VA 5V 4
G N D 3
Y A/D 2
G N D 1
CN103
VDD 10
G N D 9
1/2 FH MP 8
LALT 7
1/2 FH D 6
G N D 5
TITLE Y 4
BLANK Y 3
TITLE C 2
PB 5V 1

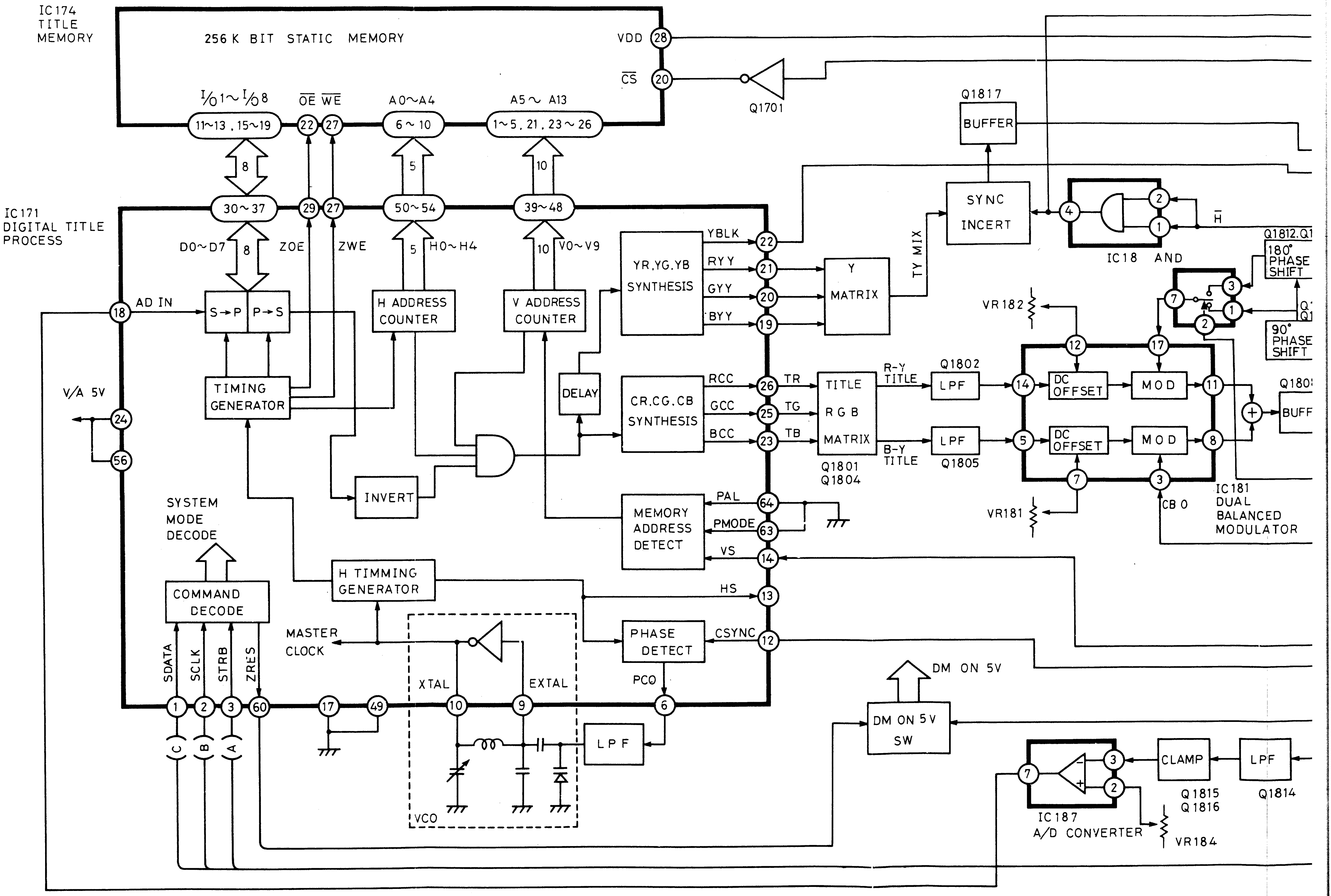
3-4. SERVO/SYSTEM CONTROL BLOCK

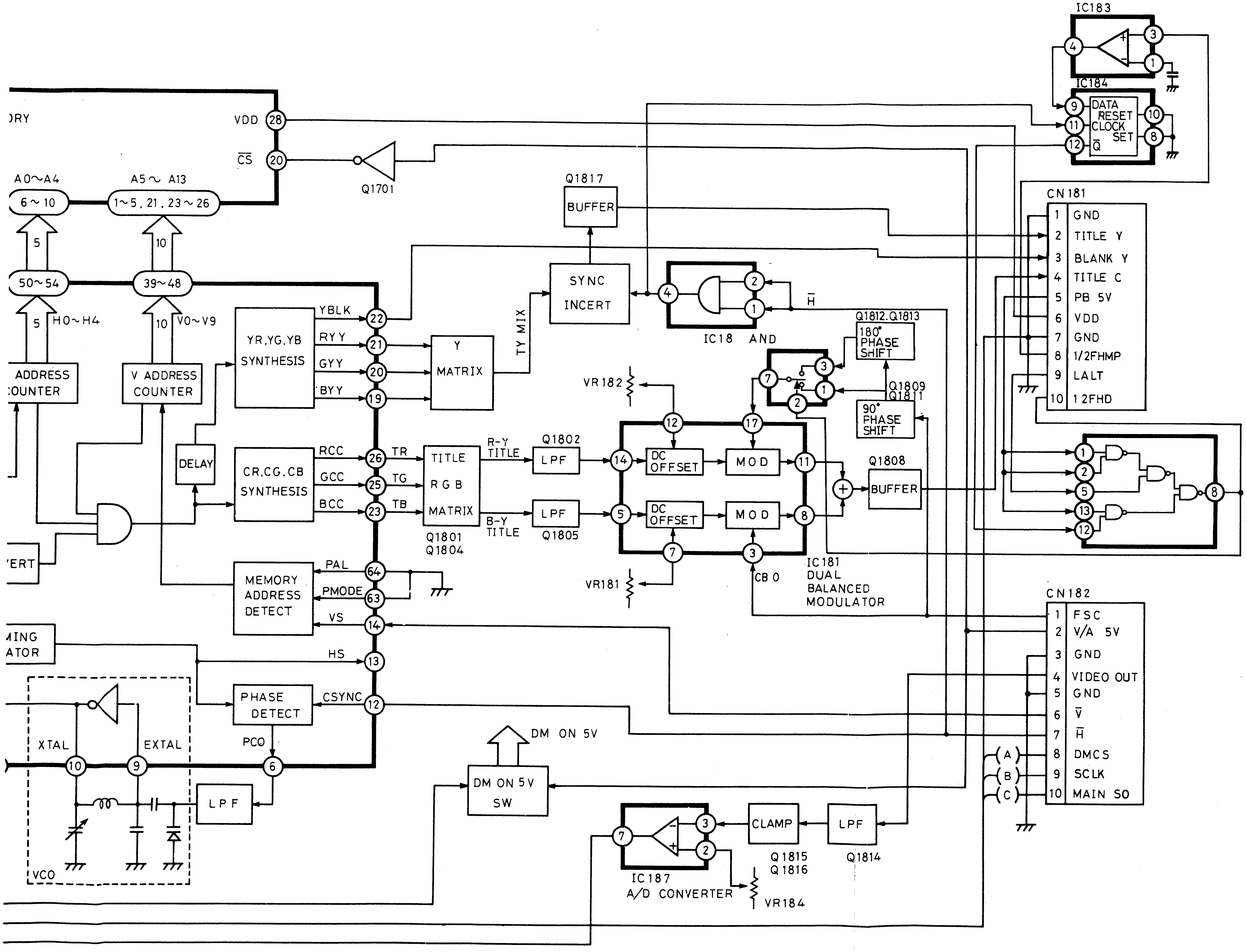


SY-1
SY-2
SV1 BOARD
VD1 BOARD
(SERVO/ MECHANISM CONTROL)
LI.BATT CN302
Q3002 Q3003
TP304
IC304
RESET
BAT OFF CHECK
IC303
CN303
VDD
RESET
BATTERY OFF
SUPLED
RECLED
REMOTE
ESS1
ESS0
SCAN IN7
SCAN IN6
SCAN IN5
SCAN IN4
SCAN IN3
SCAN IN2
SCAN IN1
SCAN IN0
SCANŌ 2
SCANŌ 1
SCANŌ 0
SCANŌ 4
SCANŌ 3
MECHACS
VSYNC
OS REC GATE
CGSTB
X2
X1
XT2
XT1
SCK
SŌ
SI
POWER SW
TEST
CAMON
STBY
PMON
CAM/LIN OUT
AUDIO MUTE
VTR ON
COUNT MEMORY
COUNT RESET
TIMEADJ
EJECT
DATE
TP301
Q3007
CSTLOCKSW
REC PROOF
OS/SS
MP/HGMP
MP/ME
EDIT
CAM/LINE
JAP/US
NT/PAL
95/9
8/9.95
H.BAND
SUPER
Q3011 Q3010
Q3009
CUTTER
CAM POWER ON
VDD
CAN/LINE SW
EDIT
VIDEOCS
STBY
DMON
CAM/LINF OUT (SUPER)
AUDIO MUTE (SYSTEM RESET)
VTR POWER ON
MAIN SO
SCK
CN304
TALLY
REMOTE
ESS 1
ESS 0
SCAN OUT 2
SCAN OUT 1
SCAN OUT 0
SCAN IN 7
SCAN IN 6
SCAN IN 5
SCAN IN 4
SCAN IN 3
SCAN IN 2
SCAN IN 1
SCAN IN 0
SLOW
F.ADV
STILL
PLAY
REW
FF
REC
STOP
Q3102
Q3101
CN 312 START/STOP
CN 313
AF/MF
MACRO
UNREG
CASSETTE LOCK
MECHA CS
V SYNC
DM CS
OS REC GATE
STILL ADJ
CG STB
MAIN SI
MAIN SO
MP/HGMP
REC PROOF
MP/ME
SLOW TRACKING
COUNTER RESET
CUTTER
FOR CUTTER UNIT
CN353
S/S5V
SLOW STILL SELECT
IC353
SP SLOW LP SLOW SP STILL
CN351
JOG/PB REC
SUBH
SEARCH
FADE
CH1
CH2
POWER SAVE
FEP
TO VD1
IC355
FILTER
CN352
PF SW
BLNK
V SYNC
OS DISP
OS REC
COMP SYNC
VR321
SYNC SEP
AFC
V. SEP
IC 321 LVA519F PLL
IC324 Q3203
Q3202
IC322 μPD 6142G CG CONTROLLER
SI
SCK
STB
VCC
HSYNC
VSYNC
VSEP
CT321
IC 323 IC 324 IC 325
UNREG
DRUM SENSOR
FG
PG
CN359
IC 383, 325
WAVE SHAPER
DC BIAS
IC383, 385
CAPSFAN FG
CFG1
CFG2
IC384, 385
MECHACS
CASSETTE LOCK
JOG POS
DEW
END SENS
TOP SENS
T/E LED
SO
RFSW
REEL S
REEL T
SLOW ADJ
MODE SW0
MODE SW1
MODE SW2
LOAD
UNLOAD
JOGV PBREC
BATTERY
DM JOGV
SP/LPOUT
MH PWM
LPF
MH ON
V CENTER
VR3
DFG
DPG
CFG
MC PWM
MC ON
TSB
PT SW
PB/REC
JOG VD
VIDEO MUTE
ATF LKH
ATF ERROR
ATF LKS
SEL 1
SEL 2
MC F/R
X350
IC 351 μPD78112 SERVO/MECHANISM CONTROL
CN 352
DRUM VIDEO HEAD
CH-A
CH-B
CN 101
IC191 CXA1202
REC/PB
AMP Y/C AMF ATF
BUFF
LPF
S/S5
CN107
RECY
RFCC
RECAPM
PB PILOT
REC PILOT
PRE-AMP
GCA
MIX
16KHZ BPF
46KHZ BPF
PEAK DET
S/H B
S/H A
SCHMIDT
ATF ERROR
IC386
1/58 1/50 1/36 1/40
5.9MHZ OSC
X3701
IC371 CX1204 ATF DETECTOR
SEL 2
SEL 1


SV1 BOARD
(SERVO/ MECHANISM CONTROL)
CN303
CN353
UNREG
CASSETTE LOCK
MECHA CS
V SYNC
DM CS
OS REC GATE
STILL ADJ
CG STB
SCK
MAIN SI
MAIN SO
MP/ HGMP
REC PROOF
MP/ ME
SLOW TRACKING
COUNTER RESET
CUTTER
FOR CUTTER UNIT
CN351
JOG/ PB REC
SUBH
SEARCH
FADE
CH1
CH2
POWER SAVE
FEP
TO VD1
CN352
PF SW
BLNK
V SYNC
OS DISP
OS REC
COMP SYNC
IC355
FILTER
SLOW STILL SELECT
IC353
SP SLOW LP SLOW
SP STILL
S/S5V
IC324
Q3203
IC322
μPD6142G
CG CONTROLLER
IC323
IC324
IC325
SYNC SEP
AFC
V. SEP
VR321
IC 321 LVA519F
PLL
Q3202
CT321
HSYNC
VSYNC
VSEP
CUT TER
CAM POWER ON
VDD
CAN/LINE SW
EDIT
VIDEOCS
STBY
DMON
CAM/LINE OUT (SUPER)
AODIO MUTE (SYSTEM RESET)
VTR POWER ON
MAIN SO
SCK
CN304
CN352
UNREG
CN359
DRUM SENSOR
FG
PG
IC 383, 325
WAVE SHAPER
DC BIAS
WAVE SHAPER
IC383, 385
CAPSFAN FG
CN359
CFG1
CFG2
WAVE SHAPER
IC384, 385
CN107
PB PILOT
REC PILOT
CN351
FILTER
PRE-AMP
GCA
MIX
16KHZ BPF
46KHZ BPF
PEAK DET
PEAK DET
S/H B
S/H A
SCHMIDT
ATF ERROR
SCHMIDT
IC386
5.9MHZ OSC
X3701
1/58 1/50 1/36 1/40
SEL1
SEL2
IC371 CX1204
ATF DETECTOR
CN351
SEL 2
SEL 1
MECHACS
CASSETTE LOCK
JOG POS
DEW
END SENS
TOP SENS
T/E LED
SCK
SO
SI
RFSW
REEL S
REEL T
SLOW ADJ
MODE SW0
MODE SW1
MODE SW2
LOAD
UNLOAD
JOGV PBREC
SUBH
SEARCH
FADE
CH 1
CH 2
POWER SAVE
FEF
BATTERY
DM JOGV
SP/LPOUT
MH PWM
MH ON
V SYNC
V CENTER
VR352
VIDEO CENTER
DFG
DPG
CFG
TSB
ATF LKH
ATF ERROR
ATF LKS
SEL 1
SEL 2
MC PWM
MC ON
PI SW
PB/REC
JOG VD
VIDEO MUTE
X3501
MC F/R
IC 351 μPD78112
SERVO/ MECHANISM CONTROL
CN 352
PI SW
PB/ REC
JOG VD
VIDEO MUTE
CASSETTE DOWN SW
TAPE END SENSOR
T/F
DEW SENSOR
TAPE TOP SENSOR
Q3503
MOTOR POWER
MP/ HGMP
REC PROOF SW
MP/ ME SW
MP/ HGMP
REC PROOF
MP/ ME
MODE SW 2
MODE SW 0
MODE SW 1
MODE SW
REEL T
REEL S
REEL LED ON
LOAD(−)
LOAD(+)
S/S5V
T REEL SENSOR
S REEL SENSOR
Q3504
LOADING MOTOR
IC 352
LB1613
LOADING MOTOR DRIVE
MOTOR POWER
BATTERY ADJ
IC 386
Q3801
Q3802
VR351
VOLTAGE REG
MOTOR POWER
UNREG
23.4KHZ
MOTOR CLK
Q3806
Q3807
Q3810
STERTER
S/S5V
UNREG
CN358
DRUM COM
DRUM MOTOR
DRUM(U)
DRUM(V)
DRUM(W)
LPF
PHASE COMP
30HZ TRAP
IC354
PWM OSC
POWER DRIVER
Q3803
LPF
BRAKE
IB CONTROL
POWER OFF
CW/CCW
EMF DET
UNREG
VCC
OVERLOAD DET
EMF MIX
STARTER
IC 382 CX20114
DRUM MOTOR DRIVE
S/S5V
UNREG
Q3804
Q3805
POWER DRIVER
VCC2
VCC1
POWER OFF
VOLT REG
HOLL V. SUP
120° LOGIC
U
V
W
UHE+
UHE−
VHE+
VHE−
WHE+
WHE−
IC381
LB1617M
CAPSTAN MOTOR DRIVE
CN359
CAP(U)
CAP(V)
CAP(W)
CVE −
CVE +
VHE +
VHE −
UHE +
UHE −
WHE +
WHE −
CAPSTAN MOTOR
HALL DEVICE

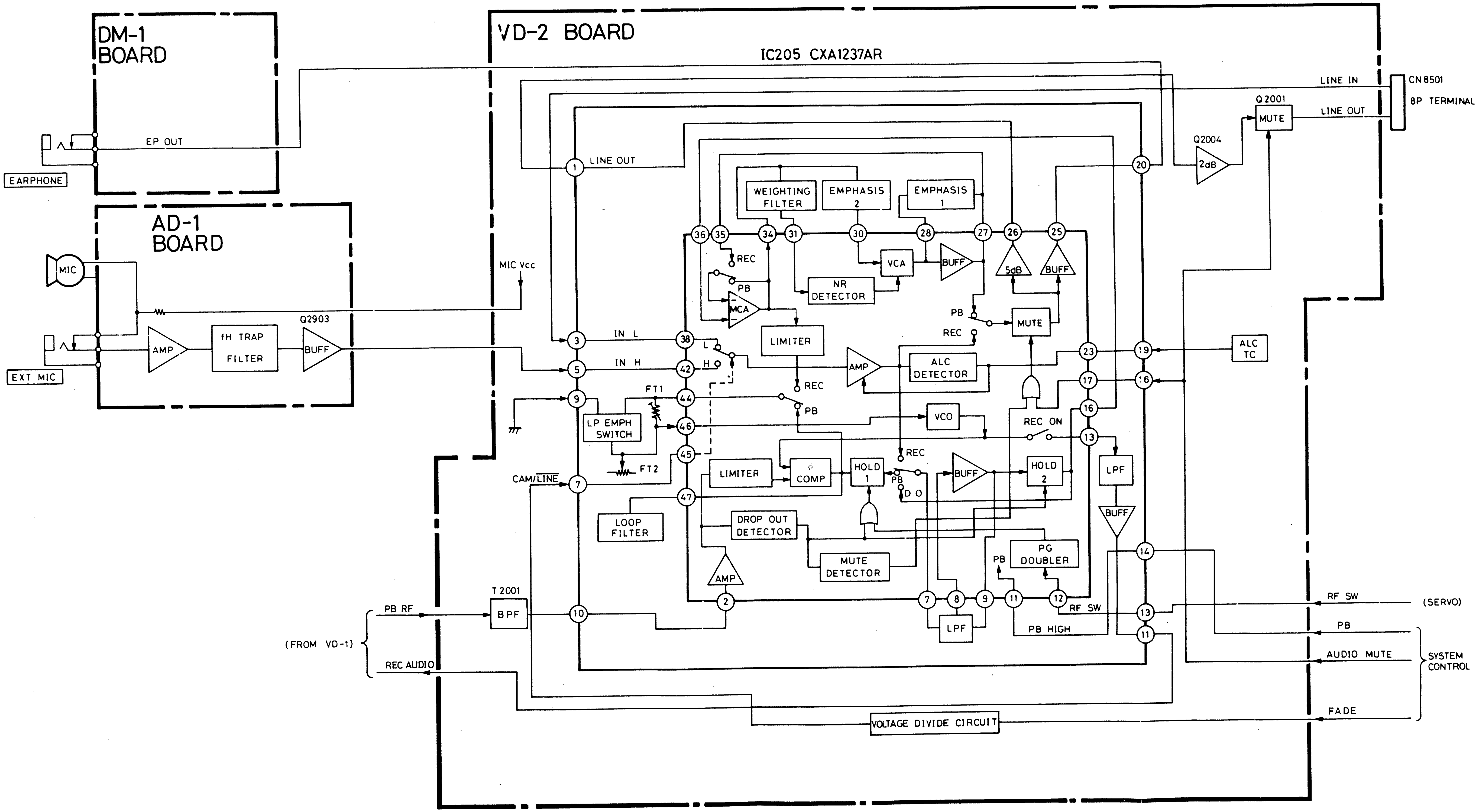
3-5. DIGITAL MEMORY BLOCK

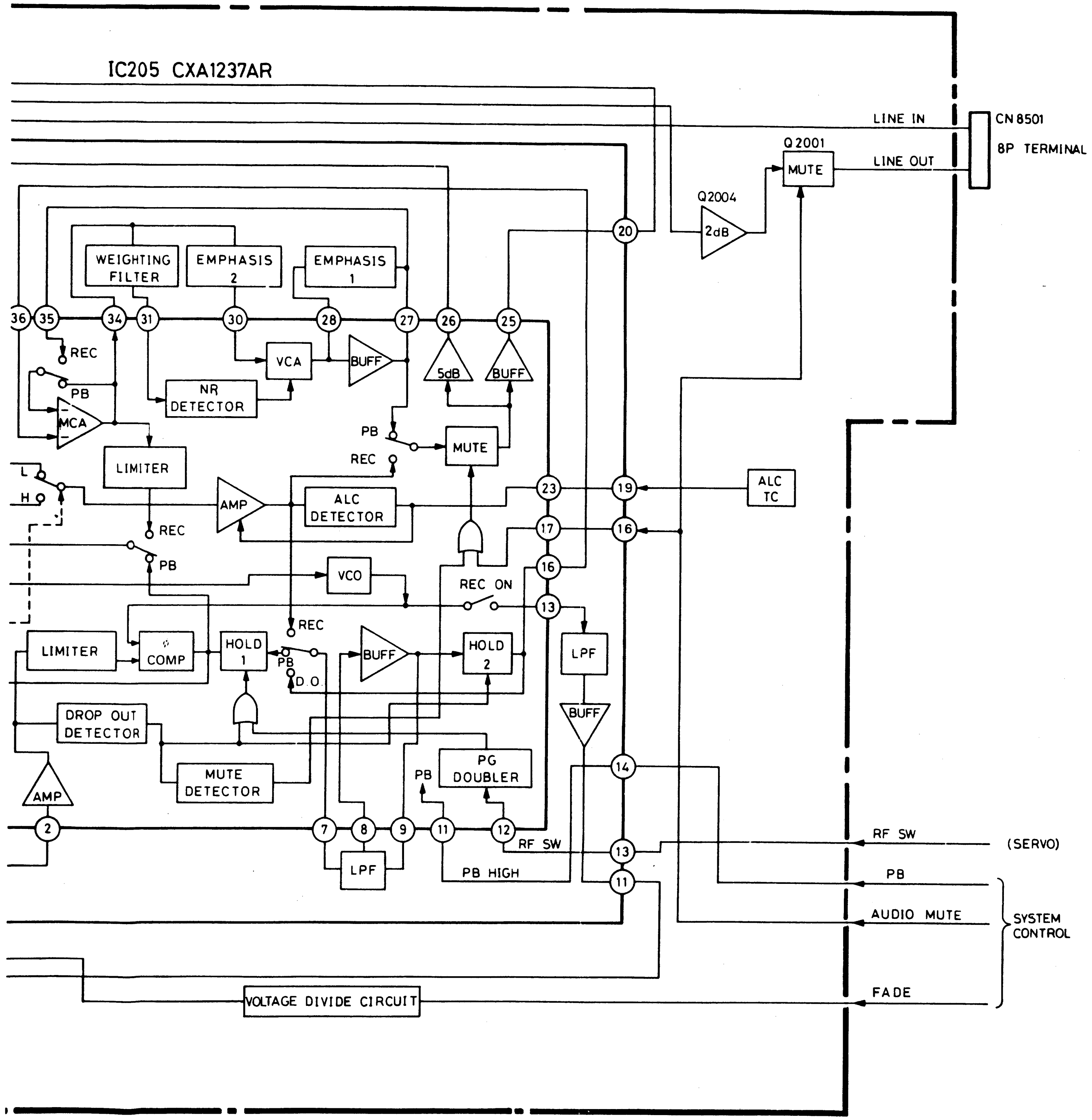

IC174
TITLE
MEMORY
256 K BIT STATIC MEMORY
VDD
28
$\overline{CS}$
20
Q1701
I/O1~I/O8
11~13, 15~19
$\overline{OE}$ $\overline{WE}$
22
27
A0~A4
6~10
A5~A13
1~5, 21, 23~26
8
5
10
Q1817
BUFFER
IC171
DIGITAL TITLE
PROCESS
30~37
29
27
50~54
39~48
D0~D7
8
ZOE
ZWE
5
H0~H4
10
V0~V9
YBLK
RYY
GYY
BYY
22
21
20
19
YR, YG, YB
SYNTHESIS
Y
MATRIX
TY MIX
SYNC
INCERT
4
2
1
$\overline{H}$
IC18 AND
Q1812, Q1
180°
PHASE
SHIFT
3
7
1
2
VR182
Q
Q1
90°
PHASE
SHIFT
18
AD IN
S→P
P→S
H ADDRESS
COUNTER
V ADDRESS
COUNTER
TIMING
GENERATOR
V/A 5V
24
56
DELAY
CR, CG, CB
SYNTHESIS
RCC
GCC
BCC
26
25
23
TR
TG
TB
TITLE
R G B
MATRIX
Q1801
Q1804
R-Y
TITLE
B-Y
TITLE
Q1802
LPF
LPF
Q1805
12
17
14
DC
OFFSET
MOD
11
5
DC
OFFSET
MOD
8
7
3
+
Q180
BUFF
VR181
CB 0
IC181
DUAL
BALANCED
MODULATOR
INVERT
SYSTEM
MODE
DECODE
MEMORY
ADDRESS
DETECT
PAL
PMODE
VS
64
63
14
H TIMMING
GENERATOR
HS
13
COMMAND
DECODE
MASTER
CLOCK
PHASE
DETECT
CSYNC
12
SDATA
SCLK
STRB
ZRES
XTAL
EXTAL
PCO
DM ON 5V
1
2
3
60
17
49
10
9
6
DM ON 5V
SW
(C)
(B)
(A)
LPF
VCO
7
3
2
CLAMP
LPF
Q1815
Q1816
Q1814
IC187
A/D CONVERTER
VR184



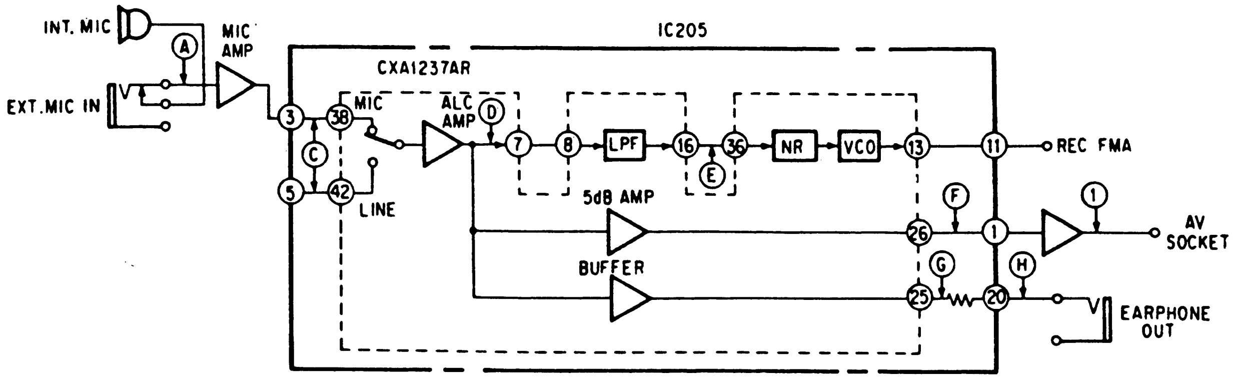
)RY
VDD 28
CS 20
Q1701
A0~A4
6~10
A5~A13
1~5, 21, 23~26
5
10
50~54
39~48
5 H0~H4
10 V0~V9
ADDRESS
:OUNTER
V ADDRESS
COUNTER
DELAY
'ERT
IING
ATOR
YR,YG,YB
SYNTHESIS
YBLK 22
RYY 21
GYY 20
BYY 19
Y
MATRIX
TY MIX
SYNC
INCERT
Q1817
BUFFER
IC18 AND
H
CR,CG,CB
SYNTHESIS
RCC 26 TR
GCC 25 TG
BCC 23 TB
TITLE
R G B
MATRIX
Q1801
Q1804
R-Y
TITLE
B-Y
TITLE
Q1802
LPF
Q1805
LPF
VR182
VR181
DC
OFFSET
MOD
DC
OFFSET
MOD
CB 0
IC181
DUAL
BALANCED
MODULATOR
Q1812,Q1813
180°
PHASE
SHIFT
Q1809
Q1811
90°
PHASE
SHIFT
Q1808
BUFFER
MEMORY
ADDRESS
DETECT
PAL 64
PMODE 63
VS 14
HS 13
PHASE
DETECT
CSYNC 12
PCO
6
XTAL
EXTAL
10
9
VCO
LPF
DM ON 5V
DM ON 5V
SW
IC187
A/D CONVERTER
CLAMP
LPF
Q1815
Q1816
Q1814
VR184
IC183
IC184
DATA
RESET
CLOCK
SET
Q
CN181
1 GND
2 TITLE Y
3 BLANK Y
4 TITLE C
5 PB 5V
6 VDD
7 GND
8 1/2FHMP
9 LALT
10 1 2FHD
CN182
1 FSC
2 V/A 5V
3 GND
4 VIDEO OUT
5 GND
6 V
7 H
8 DMCS
9 SCLK
10 MAIN SO
A
B
C

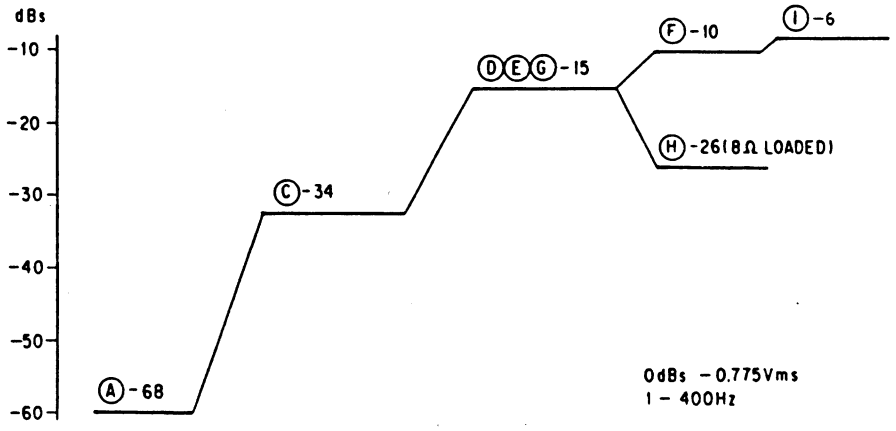
3-6. AUDIO BLOCK

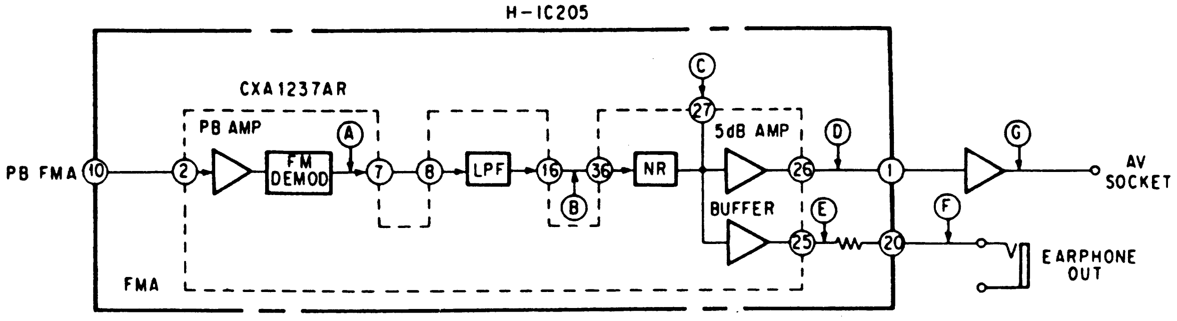

DM-1 BOARD
EP OUT
EARPHONE
AD-1 BOARD
MIC
EXT MIC
AMP
fH TRAP FILTER
Q2903
BUFF
VD-2 BOARD
IC205 CXA1237AR
LINE OUT
MIC Vcc
IN L
IN H
FT1
FT2
LP EMPH SWITCH
CAM/LINE
LOOP FILTER
WEIGHTING FILTER
EMPHASIS 2
EMPHASIS 1
REC
PB
MCA
NR DETECTOR
VCA
BUFF
5dB
LIMITER
AMP
ALC DETECTOR
MUTE
VCO
REC ON
COMP
HOLD 1
HOLD 2
D.O
DROP OUT DETECTOR
MUTE DETECTOR
PG DOUBLER
LPF
RF SW
PB HIGH
T2001
BPF
PB RF
REC AUDIO
(FROM VD-1)
VOLTAGE DIVIDE CIRCUIT
Q2004
2dB
Q2001
MUTE
LINE IN
LINE OUT
CN8501
8P TERMINAL
ALC TC
RF SW
(SERVO)
PB
AUDIO MUTE
FADE
SYSTEM CONTROL

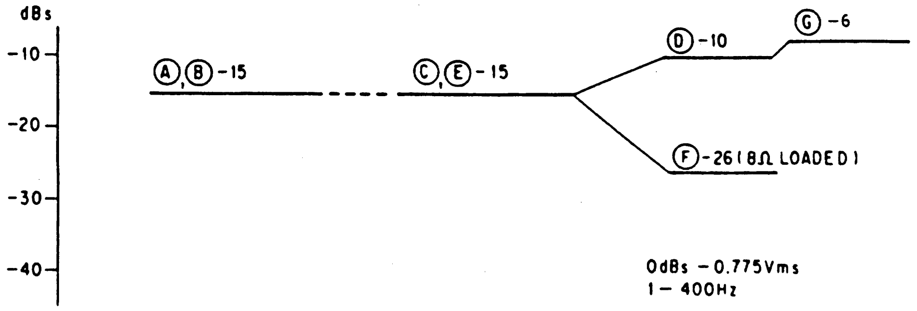

IC205 CXA1237AR
LINE IN
LINE OUT
CN8501
8P TERMINAL
Q2001
MUTE
Q2004
2dB
WEIGHTING FILTER
EMPHASIS 2
EMPHASIS 1
36
35
34
31
30
28
27
26
25
REC
PB
MCA
VCA
BUFF
NR DETECTOR
5dB
BUFF
PB
REC
MUTE
L
H
LIMITER
REC
PB
AMP
ALC DETECTOR
20
23
19
17
16
16
13
ALC TC
VCO
REC ON
REC
LIMITER
COMP
HOLD 1
PB
D O
BUFF
HOLD 2
LPF
BUFF
DROP OUT DETECTOR
MUTE DETECTOR
PG DOUBLER
PB
14
AMP
2
7
8
9
11
12
LPF
RF SW
PB HIGH
13
11
RF SW
(SERVO)
PB
AUDIO MUTE
SYSTEM CONTROL
FADE
VOLTAGE DIVIDE CIRCUIT

AUDIO LEVEL DIAGRAM

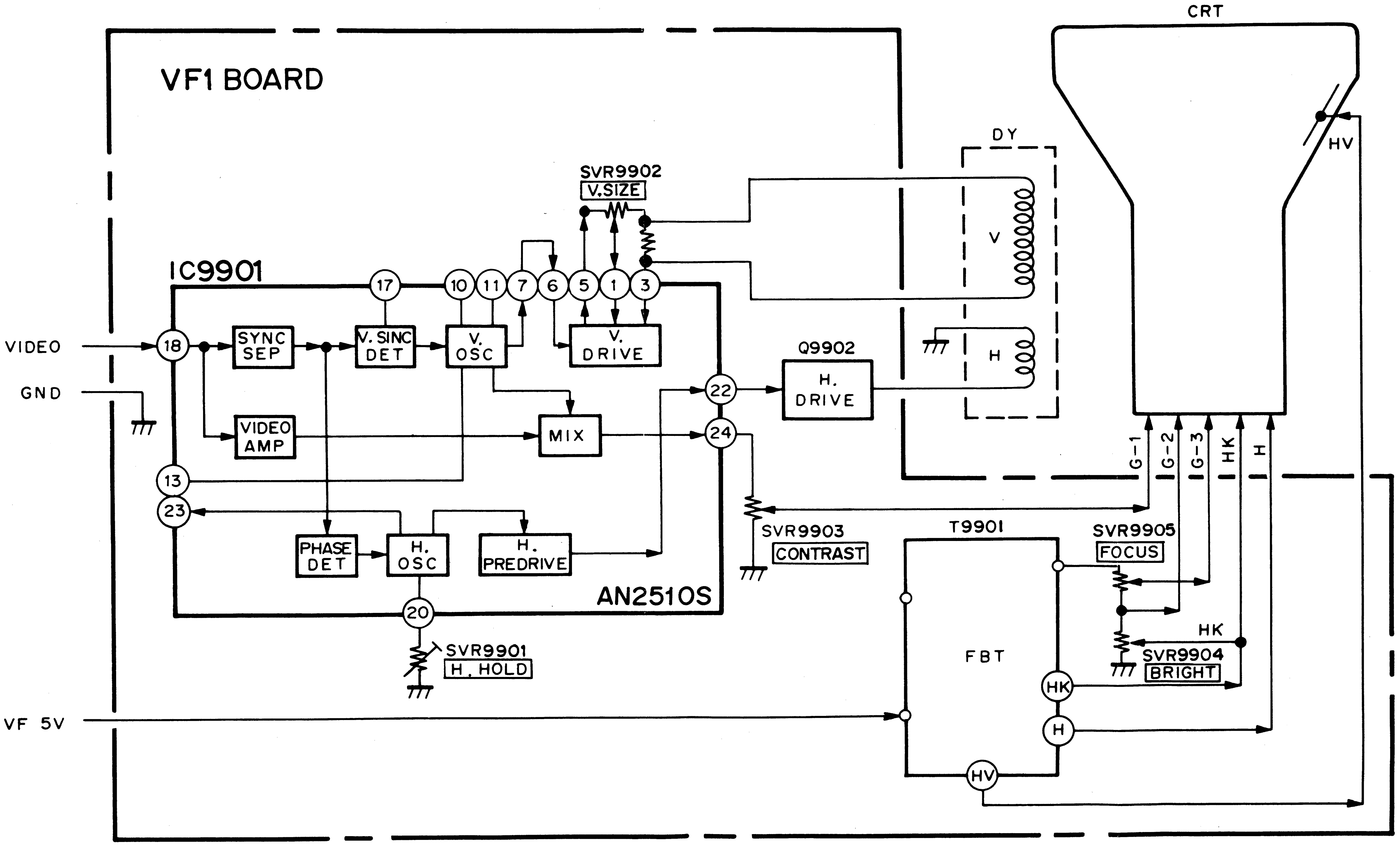

INT. MIC
EXT. MIC IN
Ⓐ
MIC AMP
IC205
CXA1237AR
MIC
LINE
ALC AMP
Ⓓ
3
38
Ⓒ
5
42
7
8
LPF
16
36
Ⓔ
NR
VCO
13
11
REC FMA
5dB AMP
BUFFER
Ⓕ
Ⓖ
26
25
1
20
Ⓗ
Ⓘ
AV SOCKET
EARPHONE OUT




H-IC205
CXA1237AR
PB AMP
FM DEMOD
Ⓐ
Ⓒ
27
5dB AMP
Ⓓ
Ⓖ
PB FMA
10
2
7
8
LPF
16
36
Ⓑ
NR
26
1
AV SOCKET
BUFFER
Ⓔ
25
20
Ⓕ
EARPHONE OUT
FMA



3-7. EVF BLOCK DIAGRAM


VF1 BOARD
IC9901
AN2510S
VIDEO
GND
VF 5V
SYNC SEP
V. SINC DET
V. OSC
V. DRIVE
VIDEO AMP
MIX
PHASE DET
H. OSC
H. PREDRIVE
18
17
10
11
7
6
5
1
3
13
23
22
24
20
SVR9902
V.SIZE
SVR9901
H. HOLD
Q9902
H. DRIVE
SVR9903
CONTRAST
DY
V
H
CRT
HV
G-1
G-2
G-3
HK
H
T9901
FBT
SVR9905
FOCUS
SVR9904
BRIGHT
HK
H
HV

34

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1. CAMERA SECTION ADJUSTMENT

1-1. EQUIPMENT USED

1. Vectorscope (TEKTRONIX.INC : No.520A)
2. Oscilloscope (Dual trace oscilloscope having band of over 10 MHz, incorporating delay mode. (Use 10 : 1 probe unless otherwise specified))
3. Color monitor TV
4. Digital voltmeter
5. AV output cord

1-2. LIST OF SERVICING JIG

Ref. No.	Parts cord	Parts Name
J-1	VJ8-0007	Color viewer 5100° K
J-2	VJ8-0019	Halogen viewer 2800° K
J-3	VJ8-0010	Gray scale
J-4	VJ8-0009	Color bar chart
J-5	VJ8-0030	Socket extractor jig
J-6	VJ8-0078	Camera block fixing jig
J-7	VJ8-0020	Pan head
J-8	VJ8-0069	Extension cord
J-9	VJ8-0068	Extension FPC
J-10	VJ8-0070	Extension cord
J-11	VJ8-0077	Relay FPC

1-3. SETUP AND CONNECTION DIAGRAM

1) Place the camera section on the jig J-6 as shown in Fig. 1-1.

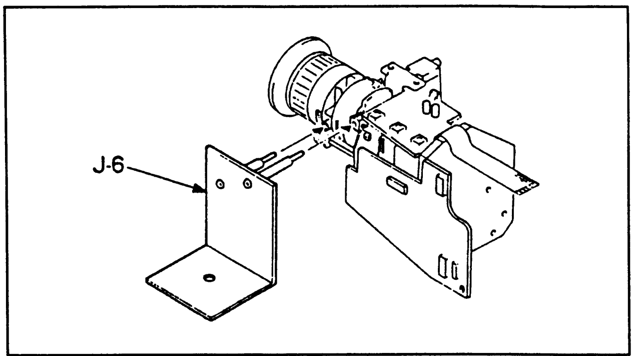
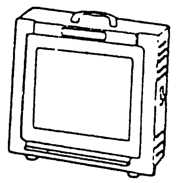
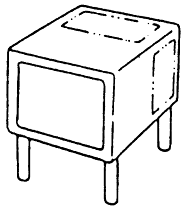


Fig. 1-1.

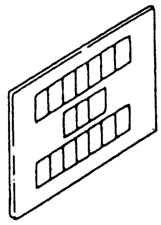
J-1



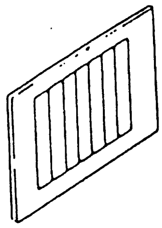
J-2



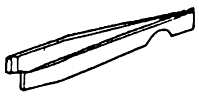
J-3



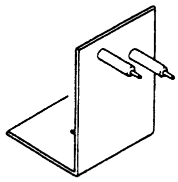
J-4



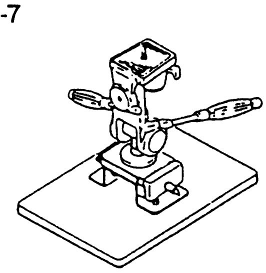
J-5



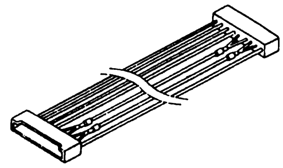
J-6



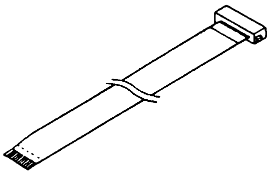
J-7



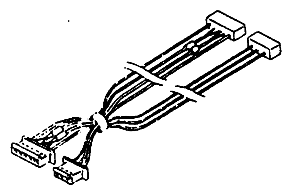
J-8



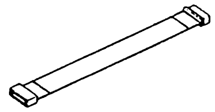
J-9



J-10



J-11



2) Set up the camera section and color viewer as shown in Fig. 1-2.

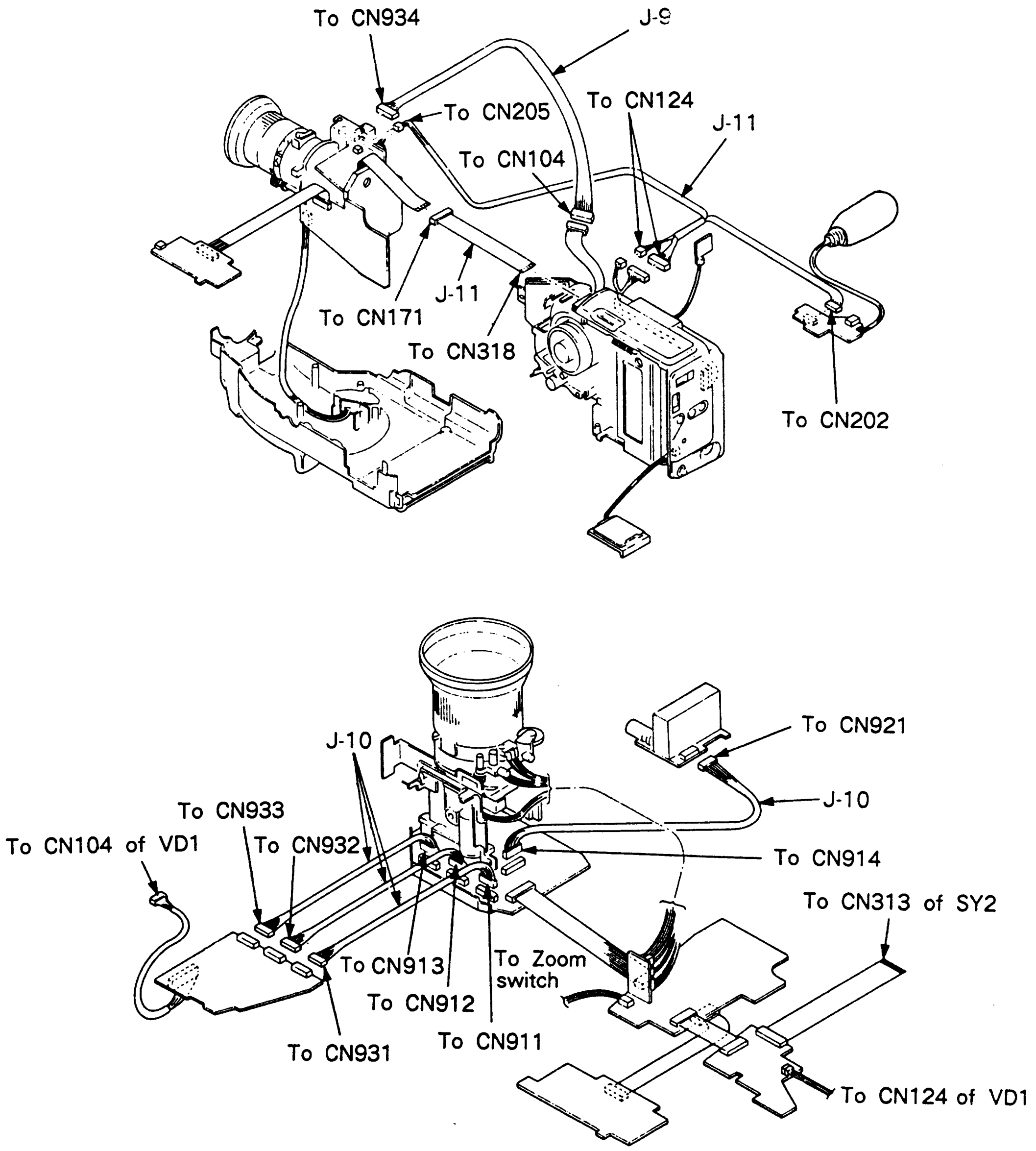

To CN934
J-9
To CN205
To CN124
J-11
To CN104
To CN171
J-11
To CN318
To CN202
J-10
To CN921
J-10
To CN933
To CN104 of VD1
To CN932
To CN914
To CN313 of SY2
To CN913
To Zoom switch
To CN912
To CN911
To CN931
To CN124 of VD1

Fig. 1-2.

3) Connection of Equipment

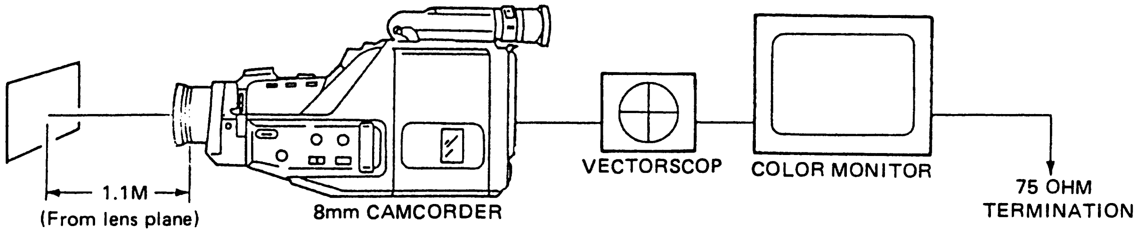

1.1M
(From lens plane)
8mm CAMCORDER
VECTORSCOP
COLOR MONITOR
75 OHM
TERMINATION

Fig. 1-3.

1-4. BEFORE ADJUSTING

[Standard Shooting Conditions]

1) Normally shoot a 510°K color viewer located 1.1m from the front element of the lens. When 3600°K is specified use a 3200°K color viewer and a C4 filter.
2) Heat at least 10 min before adjustment.
3) Use the accurate angle of view shown in Fig. 1-4 and Fig.1-5 except when rough shooting angle is indicated.

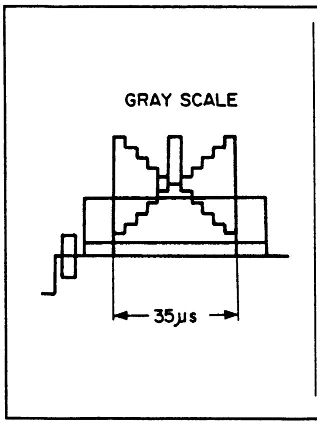


Fig. 1-4.

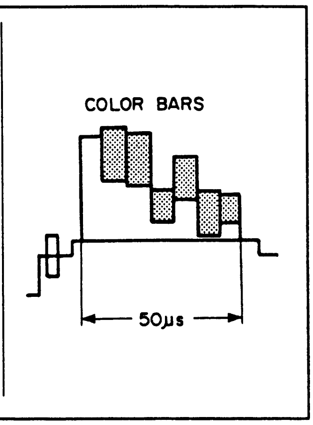


Fig. 1-5.

4) As a rule adjustments should be done in the written order below.
5) For all adjustments TP951 on the TC1 board should be connected to the GND.
6) Set the voltages at center terminals of VR914 (VCS GAIN) and VR915 (CS GAIN) to DC 5V.
7) In case no subject is described and subject is OK.
8) The middle potential of VR939 (Y y), VR953 should be set between 0V and 5V. However, don't set in a dead zone of VR.
   Basically, it is not necessary for VR939 and VR953 to change the middle potential during adjustment.

1-5. OFD VOLTAGE ADJUSTMENT

Measuring instrument : Digital voltmeter
Measurement point : TP911 (OFD)
Adjustment point : VR901
Adjusting method :
Adjust to the voltage indicated by two characters on the back of the CCD.

1st digit	7	8	9	A	B	C	D	E	F	G	H	I	J
Value	7	8	9	10	11	12	13	14	15	16	17	18	19

Example : F5……15.5 (V)

1-6. AGC LEVEL ADJUSTMENT

Subject : Gray scale, shooting angle Fig.1-4
Measuring instrument : Oscilloscope
(10 us/div, 50 mV/div)
Measurement point : TP914
Adjustment value : 220 mV ± 10 mV
Adjustment point : VR903 (AGC)

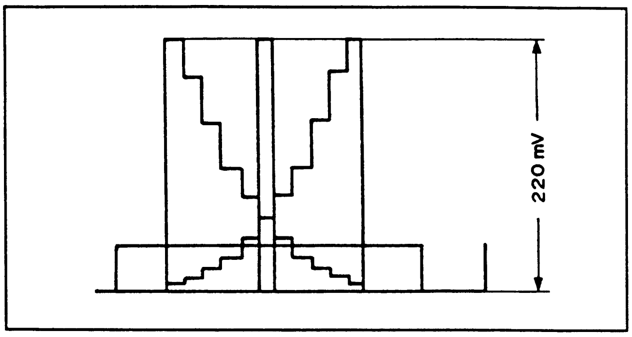


Fig. 1-6.

1-7. Y1 LEVEL ADJUSTMENT

Subject : Gray scale, rough shooting angle
Measuring instrument : Oscilloscope
(20 us/div, 20 mV/div)
Measurement points : TP917 (Y0), TP918 (Y1)
Adjustment point : VR907 (Y1 GAIN)
Adjusting method :

1) Connect TP917 (Y0) to the CH1 and TP918 (Y1) to the CH2.
2) Subtract CH2 from CH1 and adjust for minimum waveform amplitude.

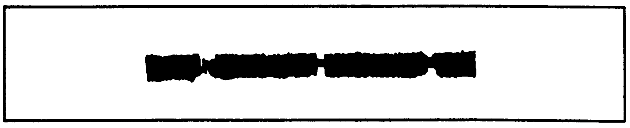


Fig. 1-7.

[PV-C860E model only]
Adjusting method :

1) Measure signal level (P-P) at TP917 (Y0). See Fig. 1-8.
2) Observe the waveform at TP918 (Y1) and adjust VR907 (Y1 GAIN) so that signal level (P-P) matches that at TP917 (Y0) (a 560 pF ceramic capacitor may be used to remove noise, thus making the waveform easier to observe).

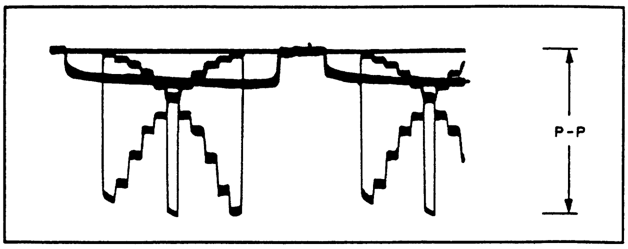


Fig. 1-8.

1-8. PEDESTAL LEVEL ADJUSTMENT

Subject : All black (put the lens cap on)
Measuring instrument : Vectorscope or waveform monitor
Measurement point : Video output
Adjustment value : 2.5%± 1.5%
Adjustment point : VR950 (SET UP)

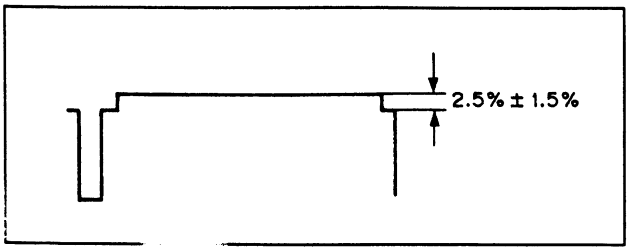


Fig. 1-9.

1-9. Y WHITE CLIP LEVEL ADJUSTMENT

Subject : Gray scale, shooting angle Fig.1-4
Measuring instrument : Oscilloscope (10 us/div, 200 mV/div)
Measurement point : CN934 No.5 pin
Adjustment point : VR949 (WC)

Adjusting method :

1) Adjust VR947 (Y LEVEL [YL]) for maximum Y output level at video out.
2) Adjust vertical gain of the oscilloscope so that the sync signal become just one division which corresponds to 30% level.
3) Turn VR949 (WC) and get the peak to peak waveheight of 3.8 div. This corresponds to 115 % video level.

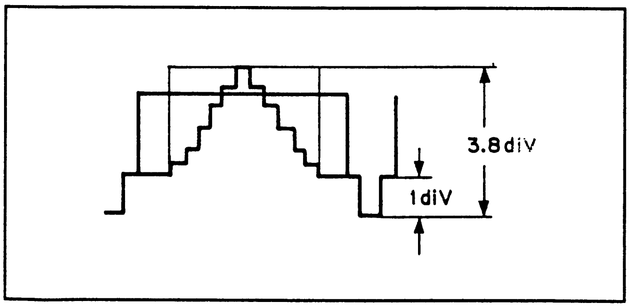


Fig. 1-10.

1-10. Y VIDEO LEVEL ADJUSTMENT

Subject : Gray scale, shooting angle Fig.1-4
Measuring instrument : Vectorscope or waveform monitor
Measurement point : Video output
Adjustment value : 105%± 2%
Adjustment point : VR947 (Y LEVEL [YL])
After this adjustment, confirm that the adjustment value of 1-8. PEDESTAL LEVEL ADJUSTMENT is satisfied, and then advance to 1-11.

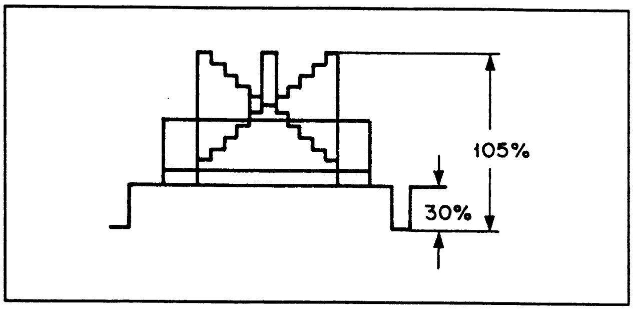


Fig. 1-11.

1-11. PLL LOCK VOLTAGE ADJUSTMENT

Measuring instrument : Digital voltmeter
Measurement point : TP9[illegible] (PLL)
Adjustment value : 2.40 ± [illegible]2V
Adjustment point : VC911

1-12. BURST PHASE ADJUSTMENT

Measuring instrument : Vectorscope at line select switch BOTH position
Measurement point : Video output
Adjustment point : VR953 (HUE CONT)

Adjusting method :

Set the phase difference between two burst signals to 90 degree.

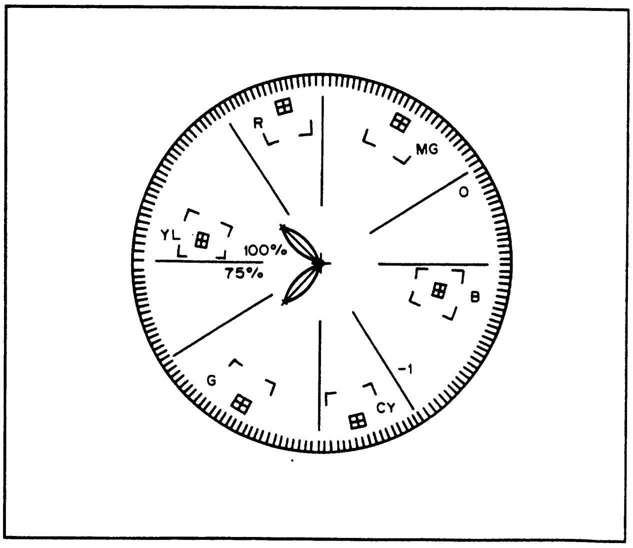


Fig. 1-12.

1-13. BURST LEVEL ADJUSTMENT

Measuring instrument : Oscilloscope
(10 us/div, 50 mV/div)
Measurement point : CN934 No.8 pin
Adjustment value : 300 mV ± 10 mV
Adjustment point : VR952 (BURST LEVEL [BSL])

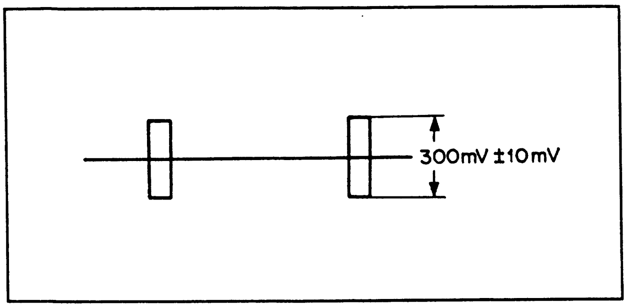


Fig. 1-13.

1-14. CHROMA BALANCE ADJUSTMENT (1)

Subject : Color bar, rough shooting angle
Measuring instrument : Oscilloscope
(20 us/div, 20 mV/div)
Measurement points : TP915 (C0), TP916 (C1)
Adjustment point : VR909 (C1 GAIN)

Adjusting method :

1) Connect CH1 to the TP915 (C0) and CH2 to the TP916 (C1). Then add CH1 and CH2.
2) Adjust so that the neighboring two waveforms at intervals of one horizontal line have no level differences. Use either upper or lower portion from the black signal level.

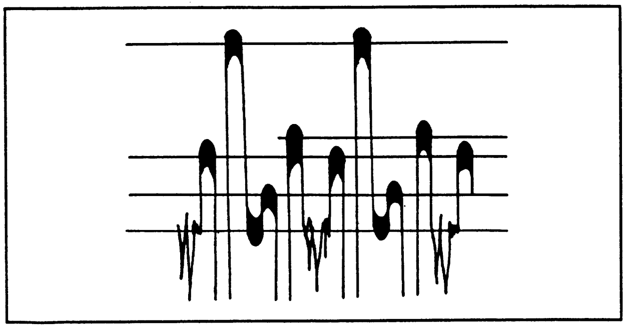


Fig. 1-14.

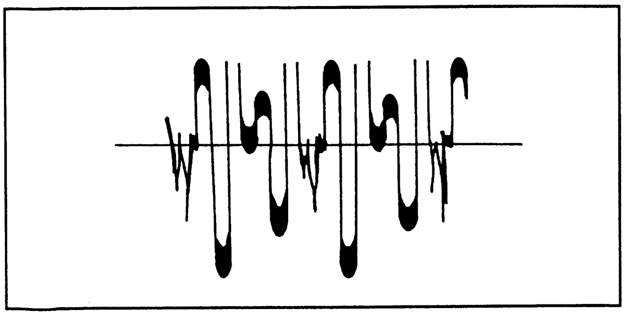


Fig. 1-15.

[PV-C860E model only]

Adjusting method :

1) Measure signal level (B0 or R0) at TP915 (C0). See Fig. 1-16.
2) Observe the waveform at TP916 (C1) and adjust VR909 (C1 GAIN) so that signal level (B1 or R1) matches that at TP915 (C0). See Fig. 1-17.

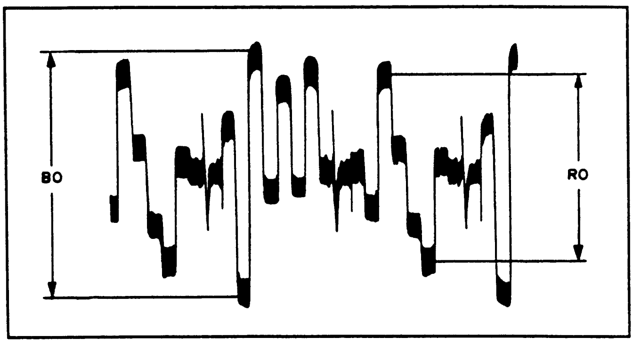


Fig. 1-16.

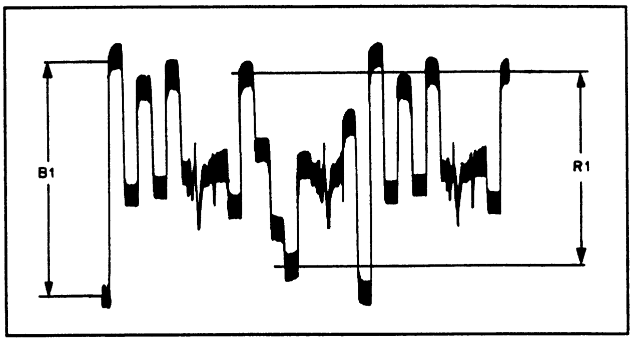


Fig. 1-17.

1-15. CHROMA BALANCE ADJUSTMENT (2)

Subject : Color bar, rough shooting angle
Measuring instrument : Vectorscope
Measurement point : Video output
Adjustment point : VR908 (C2 GAIN)

Adjusting method :

1) Set the line select switch on the vectorscope to + V.
2) Adjust so that two bright spots overlap. Then minimum chroma flickering is obtained.

1-16. CHROMA BLANKING LEVEL ADJUSTMENT

Subject : All black (put the lens cap on)
Measuring instrument : Vectorscope
Measurement point : Video output
Adjustment point : VR955 (C BLK)

Adjusting method :

1) Set the line select switch on the vectorscope to + V.
2) Adjust gain of vectorscope so that the burst signal is on the circumference of the scope.
3) Adjust with VR950 (SET UP) so that the bright spot of the vectorscope comes in the center. (Refer to Fig. 1-18.)

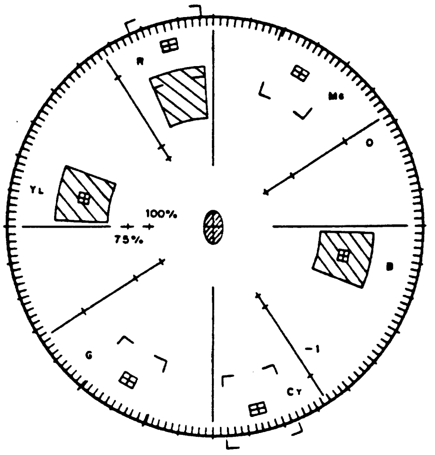


Fig. 1-18.

Note : If the center of the bright spot gets a little off the origin, adjust so that the largest possible area of the bright spot gets on the "+" mark in the center of the vectorscope screen.

1-17. CHROMA PHASE ADJUSTMENT

Subject : Color bar, shooting angle Fig.1-5
Measuring instrument : Vectorscope
Measurement point : Video output
Adjustment points : VR940 (R − Y HUE)
VR941 (B − Y HUE)
VR942 (B − Y GAIN [B-Y G])
VR943 (R − Y GAIN)

Adjusting method :

1) Set the line select switch on the vectorscope to + V.
2) Adjust gain of vectorscope so that the burst level is 75%.
3) Turn VR931 (R CONT [RC)] and VR932 (B CONT [BC)) so that the spot corresponding to white color is located at the center of the scope.
4) Turn VR940, VR941, VR942, VR943 and set the spots corresponding to red and blue color at the positions indicated in Fig.1-19.

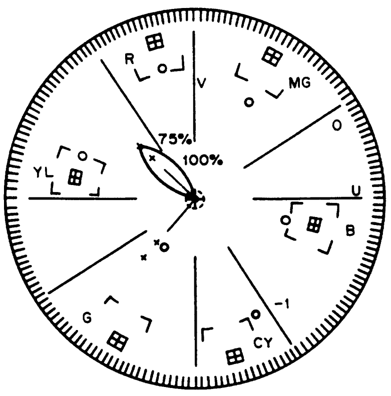


Fig. 1-19.

1-18. WHITE BALANCE ADJUSTMENT

1-18-1. Sensor 5100°K Adjustment

Subject : 5100°K color viewer
Measuring instrument : Vectorscope
Measurement point : Video output
Adjustment points : VR931 (R.C), VR932 (B.C)
Adjusting method :

1) Adjust gain of vectorscope so that the burst signal is on the circumference of the scope.
2) Connect TP931 to GND.
3) Open pin No.4 of CN933.
4) Adjust so that the bright spot is located within the assumed circle of which diameter is the center cross of the scope.

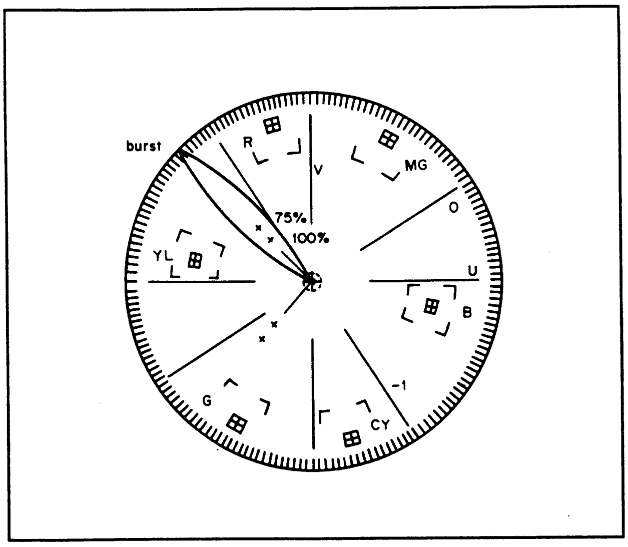


Fig. 1-20.

1-18-2. Sensor 3600°K Adjustment

Subject : 3600°K halogen viewer
Measuring instrument : Vectorscope
Measurement point : Video output
Adjustment points : VR936 (R.G), VR937 (B.G)
Adjusting method :

1) Adjust gain of vectorscope so that the burst signal is on the circumference of the scope.
2) Connect TP931 to GND.
3) Supply 1V to pin No.4 of CN933.
4) Adjust so that the bright spot is located within the assumed circle having 3 mm diameter.

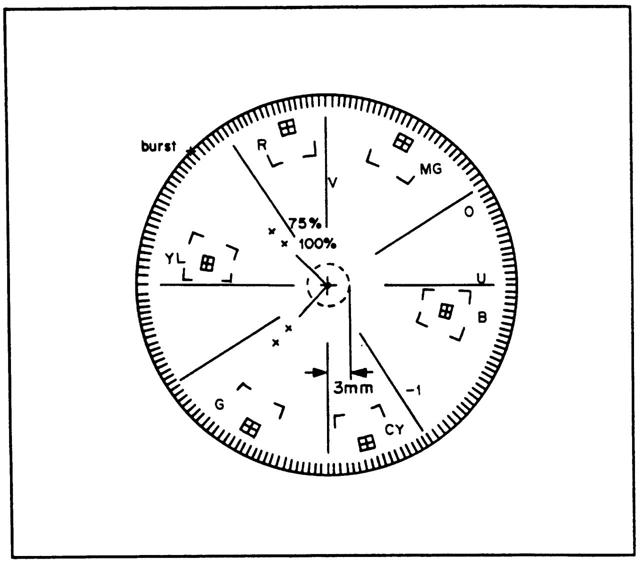


Fig. 1-21.

1-18-3. TTL Adjustment

Subject : 5100°K color viewer
Measuring instrument : Vectorscope
Measurement point : Video output
Adjustment points : VR934 (WB R – Y), VR933 (WB B – Y)
Adjusting method :

1) Adjust gain of vectorscope so that the burst signal is on the circumference of the scope.
2) Open TP931.
3) Open pin No.4 of CN933.
4) Adjust so that the bright spot is located within the assumed circle having 3 mm diameter and of which center is shifted as in the Fig.1-22.

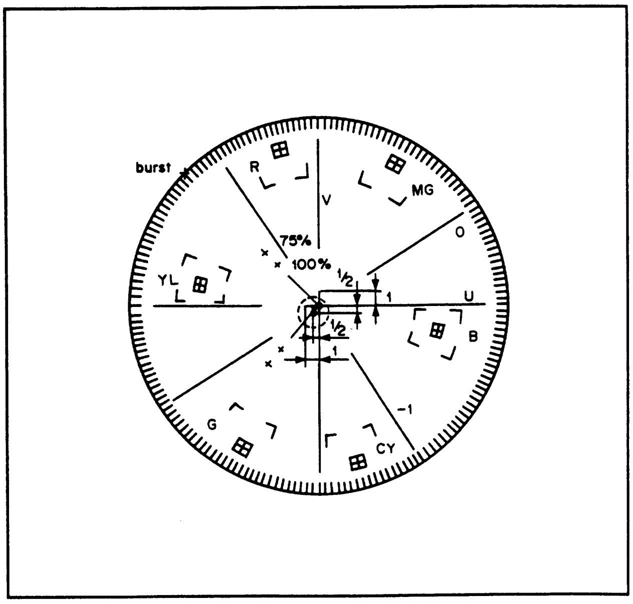


Fig. 1-22.

1-19. TC3 ADJUSTMENT

Measurement point : Pins ③ and ④ of CN971
Adjustment points : VR971 (SWG), VR972 (SWO),
VR973 (HL.I), VR974 (LL.I)
Subject : 5100° K color viewer, 3600° K light source, tungsten spotlight
Measuring instruments : Oscilloscope, digital multimeter

1-19-1. White-balance Adjustment

1) Turn VR973 (HL.I) fully counterclockwise to set output at Pin ③ of CN971 to "H" (5V).

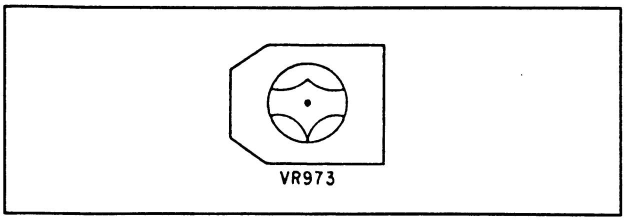


Fig. 1-23.

2) Set illumination on the diffuser side of the sensor to 100 lux, and place the sensor so that only light from the 5100° K color viewer gets on it.
3) Adjust VR972 (SWO) so that output from Pin ④ of CN971 becomes 3.6 ± 0.05V.
4) Set sensor diffuser surface illumination to 100 lux, and place the sensor so that only light from the 3600° K light source gets on it.
Put a black paper cut the center to 3600° K light source so that the sensor does not expose itself to the light around LBA-8.
5) Adjust VR971 (SWG) so that output from Pin ④ of CN971 becomes 1 ± 0.02V.

1-19-2. Illumination Detection Adjustment

1) Set sensor diffuser surface illumination to 1200 lux.
2) Adjust VR973 (HL.I) to the position immediately after the output from Pin ③ of CN971 changes from "H" to "L".
3) Attach two skylight filters to the sensor diffuser so that surface illumination becomes 1000 lux, then confirm that output level at Pin ③ of CN971 is "H".

2. MECHANISM BLOCK ADJUSTMENT

2-1. CASSETTE MECHANISM

1. Removal

1) Slide the tape-top sensor ① and the tape-end sensor ② up with regard to the chassis surface, and remove them from the cassette holder ③.
2) Remove the two screws ④.
3) Remove the GND ⑤.
4) Slide the cassette holder ③ a little bit towards the cylinder side, then pull it up to remove.
5) Remove the tape stopper ⑥ from the capstan shaft.

2. Mounting

1) Mount the tape stopper ⑥ onto the capstan shaft.
2) Catch the two hooks ⑦ of the cassette holder on the chassis knob ⑧. When doing so, make sure that the EJECT lever ⑨ does not get caught in the cassette holder lock section.
3) Secure the GND ⑤ and the cassette holder ③ with the screws ④ temporarily, loosely at first and then to a torque of 2 ± 0.2 kg-cm, starting from the right screw.
4) Mount the tape-top sensor ① and the tape-end sensor ② by sliding them down into the holder stand ⑩ slots. Confirm that both sensors are properly inserted in the holder stand slots.

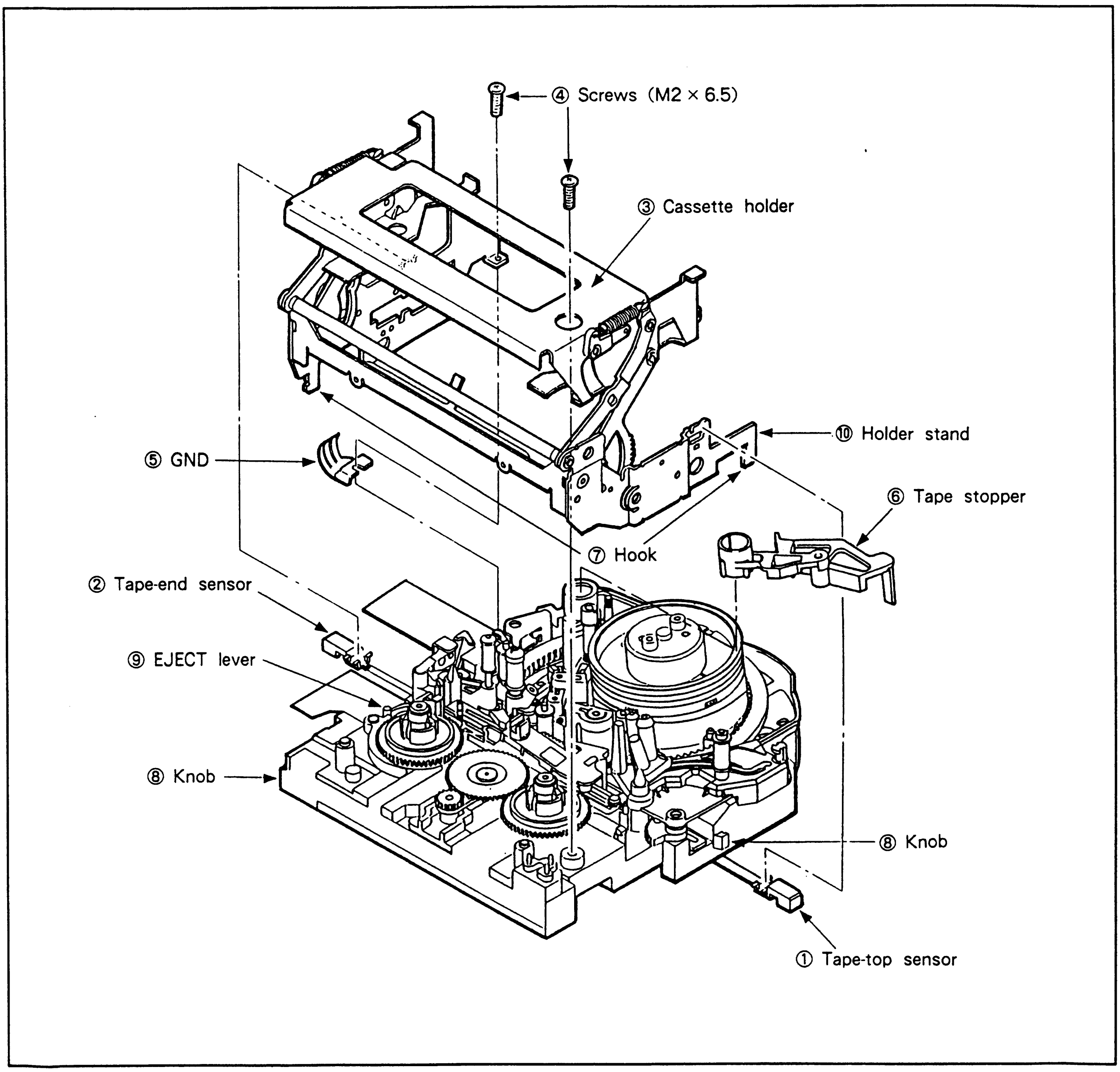

④ Screws (M2 × 6.5)
③ Cassette holder
⑩ Holder stand
⑤ GND
⑥ Tape stopper
⑦ Hook
② Tape-end sensor
⑨ EJECT lever
⑧ Knob
⑧ Knob
① Tape-top sensor

Fig. 2-1.

2-2. REMOVING A LOADED CASSETTE

1) Remove the mechanism chassis rear board.
2) Connect the mode selector to the loading motor as explained in section 2-4.
3) While pressing the UNLOAD switch little by little, turn the capstan motor rotor clockwise with an applicator to wind the tape into the cassette. Repeat this procedure to set the LOAD/UNLOAD mode.
4) Once in LOAD/UNLOAD mode, confirm that tape has been completely wound up, then press the UNLOAD switch again to eject the cassette and remove it.

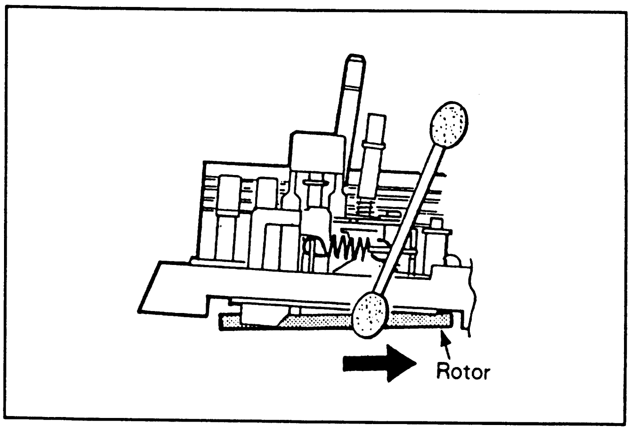


Fig. 2-2.

2-3. OPERATION WITH THE CASSETTE MECHANISM REMOVED

1. Loading

1) With the cabinet and the camera block removed, supply power to enable mechanism deck operation.
2) Cover the tape-top sensor ① and the tape-end sensor ② with black vinyl tape.
3) Fix the recognition switch ③ in the down (ON) position with adhesive tape.
4) Turn the POWER switch on.
5) Turn on the cassette holder cassette-in switch ④ to set the loading (REC/PAUSE) mode.

2. Recording

1) After completing procedures in paragraph 1., short-circuit CN321 on the SY-2 board. This will set the REC mode.

3. Eject

1) Set the EJECT switch to ON.

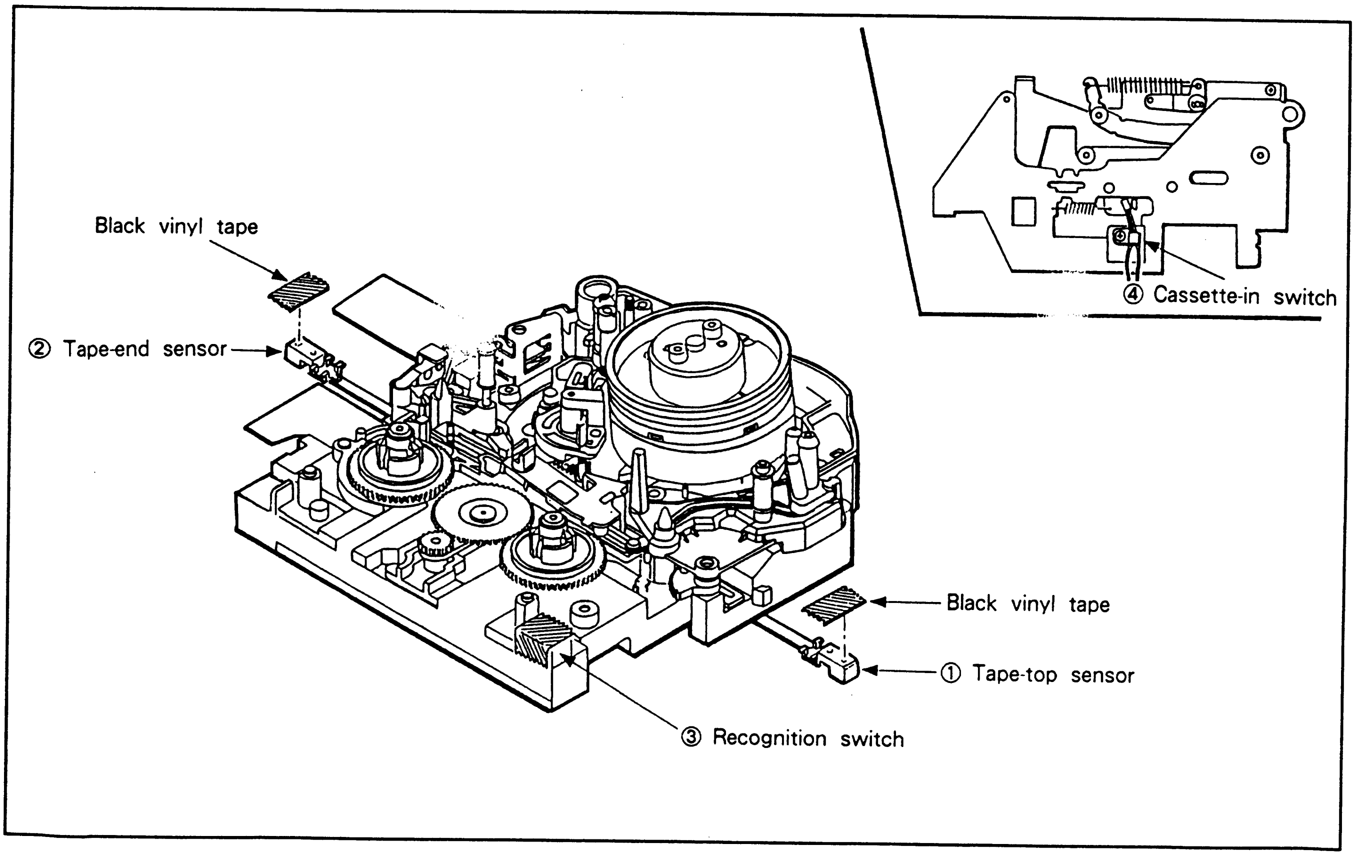


Fig. 2-3.

2-4. MODE SELECTOR CONNECTION AND USAGE

This mechanism has the four modes below. To set them, follow removal instructions.

EJECT ↔ LOAD/UNLOAD ↔ STOP ↔ PLAY (REC)

Connection : Catch the loading motor terminals shown in Fig. 2-4. with the mode selector clips.

Operation : Press the left LOAD switch of the mode selector to load, and the right UNLOAD switch to unload.

(1) EJECT Mode :
Keep the UNLOAD switch pressed until the cassette holder turns up.

(2) LOAD/UNLOAD Mode :
In the EJECT mode, press the LOAD switch repeatedly at short intervals to the point just before the S and T shuttles start to move.

(3) STOP Mode :
Keep the LOAD switch pressed and release it when loading is completed and the pinch roller is just about to start moving in the pressing direction.

(4) PLAY Mode :
Press the LOAD switch repeatedly at short intervals until the pinch roller pressure lever stops.

Notes

- When changing from the STOP mode to the PLAY mode, release LOAD switch when movement of the pinch roller pressure lever stops.
- When changing from the LOAD/UNLOAD mode to the EJECT mode, release LOAD switch when the cassette holder comes up.
- Do not keep the unit in the PLAY mode for more than 3 minutes. The pinch roller would be deformed.

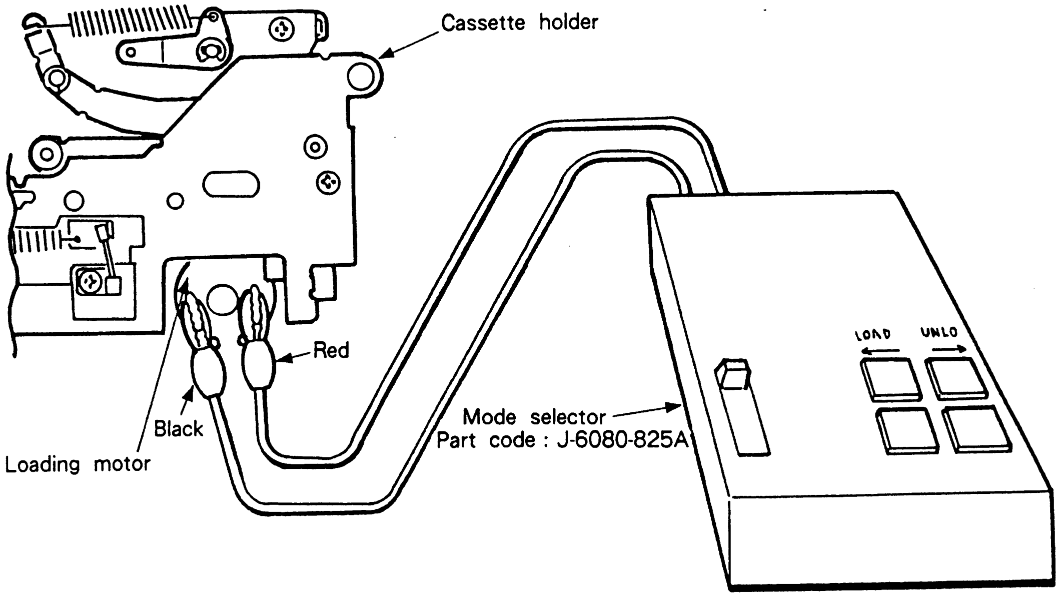


Fig. 2-4.

2-5. S REEL TABLE

1. Removal

1) Remove the cassette mechanism as explained in section 2-1.
2) Rotate the S soft brake ①, then remove the stopper from the reel table and remove the S reel table ②.

Note : When removing the S reel table ①, hold it by the reel flange section * (this also applies to mounting).

2. Mounting

1) Rotate the S soft brake ① counterclockwise and mount the S reel table ① onto the reel axle ③.
2) When doing so, make sure that the table does not get caught in the BT band assembly ④.
3) Mount the cassette mechanism as explained in section 2-1.

Notes :

1) Do not oil the reel axle ③.
2) Perform BT (TG1) guide position adjustment as explained in section 2-24.

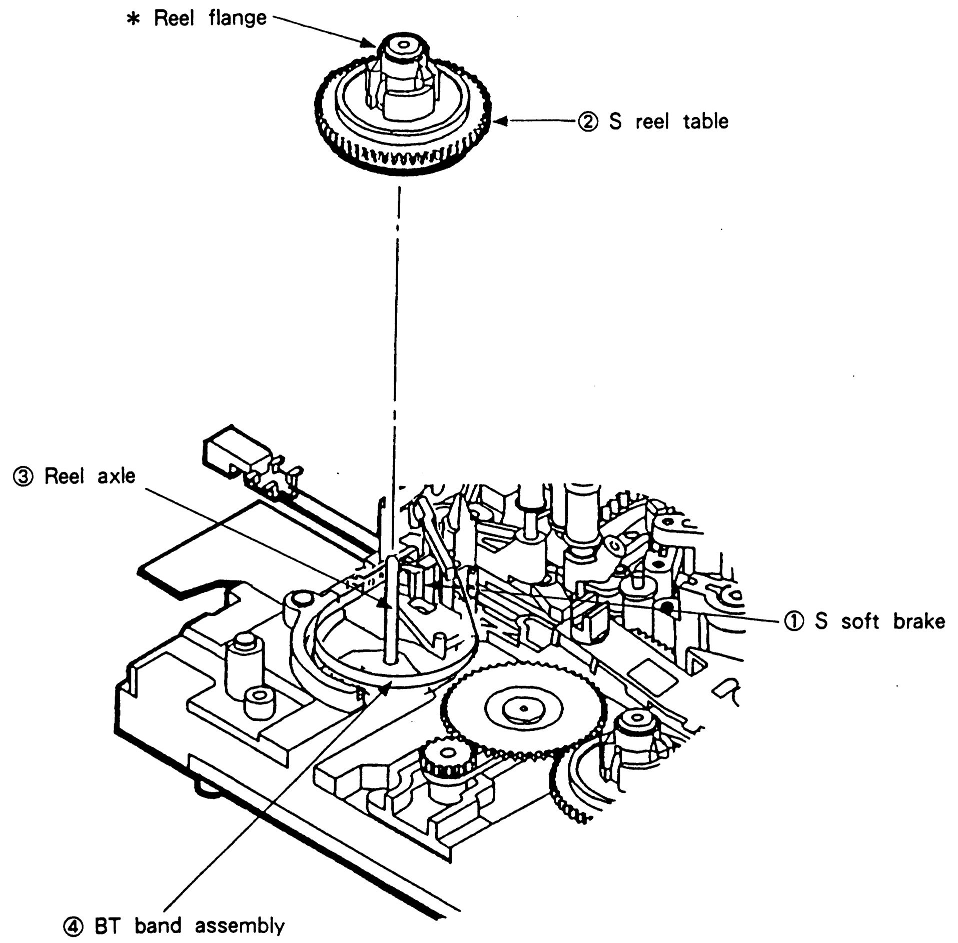


Fig. 2-5.

2-6. T REEL TABLE

1. Removal

1) Remove the cassette mechanism as explained in section 2-1.
2) Remove the screws ③ securing the LED bracket assembly ②.
3) Lift the LED bracket assembly up a little, remove the positioning part from the shaft and turn the bracket counterclockwise until the stopper is disengaged from the T reel table ①.
4) Remove the T reel table ①.

Note : When removing the T reel table ①, hold it by the reel flange section * (this also applies to mounting).

2. Mounting

1) Mount the T reel table ① onto the reel axle ④.
2) Insert the LED bracket assembly ② positioning part into the shaft and secure it with the screw ③ (tightening torque : 1.5 ± 0.2 kg-cm).
3) Mount the cassette mechanism as explained in section 2-1.

Note : Do not oil the reel axle.

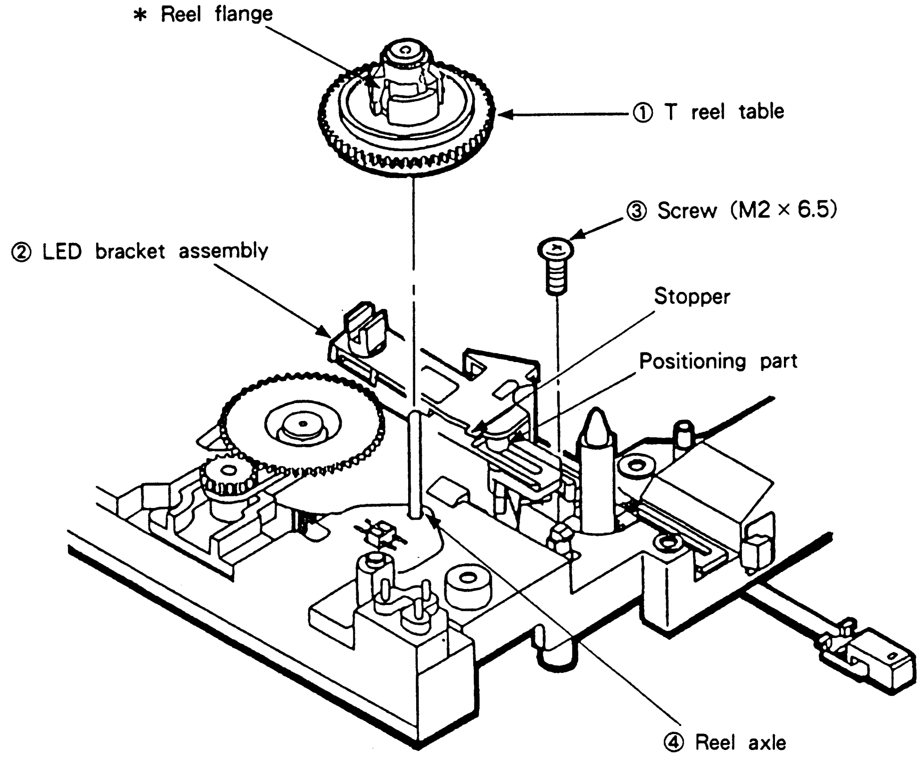

* Reel flange
① T reel table
③ Screw (M2 × 6.5)
② LED bracket assembly
Stopper
Positioning part
④ Reel axle

Fig. 2-6.

2-7. PINCH ROLLER ASSEMBLY

1. Removal

1) Remove the cassette mechanism as explained in section 2-1.
2) Remove the split washer ①, then remove the pinch roller assembly ② and the torsion spring ③.

Note: Take care not to touch the roller section *.

2. Mounting

1) Insert the torsion spring ③ into the axle ④, with the Ⓐ end inside the ring boss securing TG6.
   Note : Be sure to install the torsion spring in the proper position, with the bent end at Ⓐ.
2) Insert the pinch roller assembly ② into the axle ④, and catch the other end of the torsion spring on the pinch roller assembly ② rear side dowel ⑤.
3) Secure with the split washer ①.
4) Mount the cassette mechanism as explained in section 2-1.

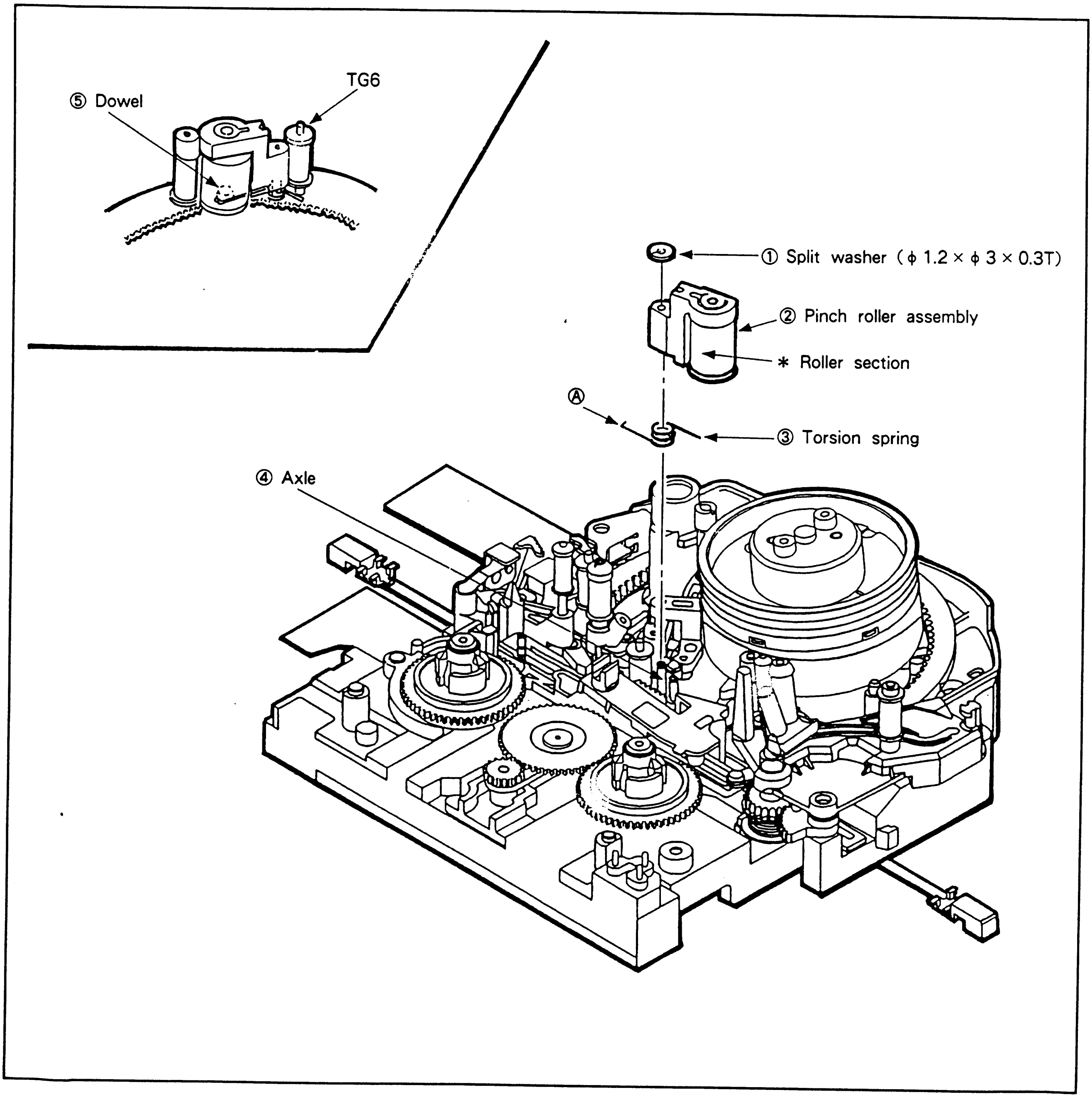

⑤ Dowel
TG6
① Split washer (ϕ 1.2 × ϕ 3 × 0.3T)
② Pinch roller assembly
* Roller section
Ⓐ
③ Torsion spring
④ Axle

Fig. 2-7.

2-8. BT LEVER ASSEMBLY

1. Removal

1) Remove the cassette mechanism as explained in section 2-1.
2) Remove the tension coil spring ① (note where it was hooked).
3) Remove the screw ②, then remove the BT spring hook assembly ③.
4) Remove the S reel table ④ as explained in section 2-5.
5) Remove the screw ⑤, then remove the BT lever assembly ⑥ and the BT band assembly ⑦.
6) Remove the BT band assembly from the BT lever assembly.

Note : Be sure not to touch the felt surface of the BT band assembly ⑦ and not to bend the band.

2. Mounting

1) Mount the BT band assembly ⑦ onto the chassis and secure it with the screw ⑤, without tightening it completely.
2) Fit the BT lever assembly ⑥ onto the axle ⑧.
3) Fit the S reel table as explained in section 2-5, then put the BT band around so that it comes in contact with the S reel table roulette section and insert its end into the BT lever assembly ⑥ hole.
4) Fit the BT spring hook assembly ③ hole onto the chassis boss and secure it with the screw ② (tightening torque : 1.5 kg-cm).
5) Hook the tension coil spring ① in its original location as noted.
6) Mount the cassette mechanism as explained in section 2-1.
7) Perform BT (TG1) guide position adjustment as explained in section 2-24, then tighten the screw ⑤ to a torque of 1.3 kg-cm.

Note : Be sure not to touch the felt surface of the BT band assembly ⑦ and not to bend the band.

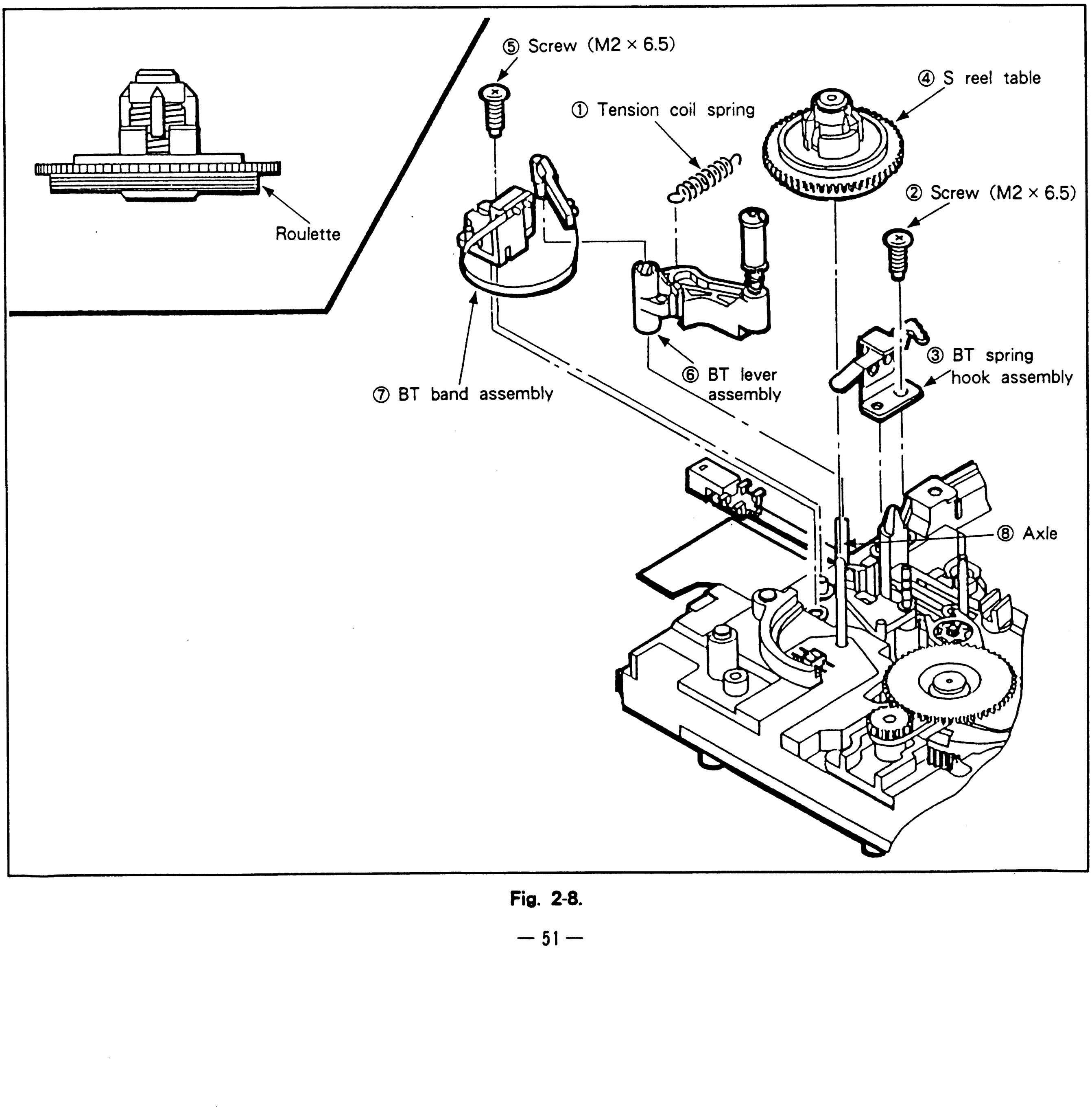


Fig. 2-8.

2-9. IDLER GEAR ASSEMBLY

1. Removal

1) Remove the cassette mechanism as explained in section 2-1.
2) Remove the two screws ①, then remove the pulley timing belt and the idler gear assembly ②.

2. Mounting

1) Mount the idler gear assembly ② onto the chassis and place the timing belt around the pulley.
2) Tighten the left screw ① loosely, then tighten both screws ① to a torque of 1.5 kg-cm, starting from the one at right.
3) Mount the cassette mechanism as explained in section 2-1.

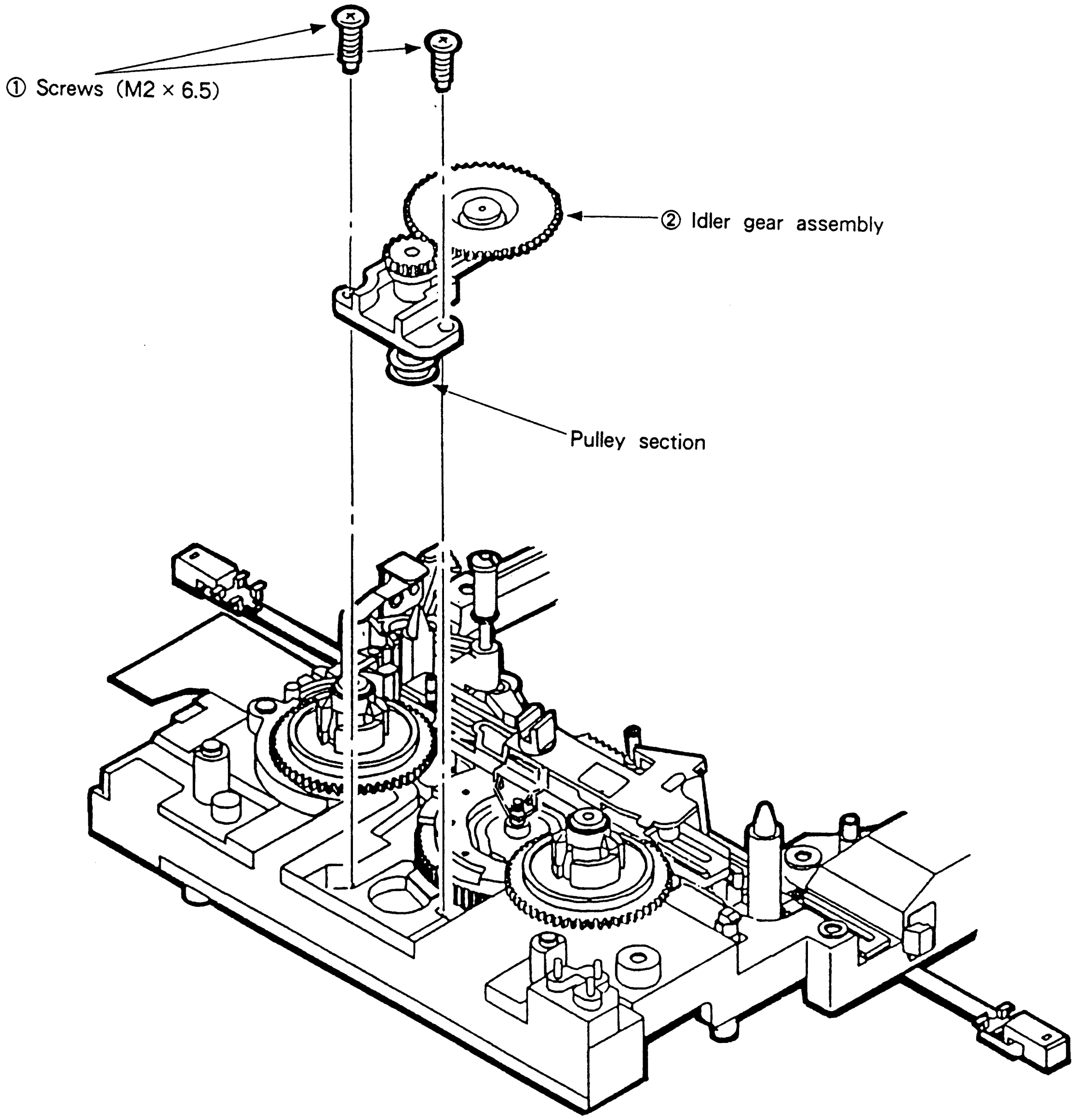


Fig. 2-9.

2-10. SLIDE CAM ASSEMBLY

1. Removal

1) Remove the cassette mechanism as explained in section 2-1.
2) Remove the BT lever assembly as explained in section 2-8.
3) Remove the idler gear assembly as explained in section 2-9.
4) Remove the screw ①, then remove the LED bracket assembly mounting claw from the main cam axle.
5) Detach the mechanism F-PCB LED harness soldered on the chassis back side, then remove the LED bracket assembly ②.
6) Perform the loading operation for the S and T shuttles by pushing LOAD button of the mode selector as explained in section 2-4, then stop the unit.
7) Remove the split washer ③, then remove the position control lever ④.
8) Remove the two split washers ⑤, then remove the slide cam assembly ⑥.

2. Mounting

1) Mount the slide cam assembly ⑥ so that the chassis shafts go into the right and left long slots, the pinch roller pressure plate pin into the " ⊂⟍⊃ " slot, and the slide cam pin into the main cam groove. Then secure it with the two split washers ⑤.
2) Fit the position control lever ④ onto the rack pin, mount it so that the pin goes into the slide cam " ⊂⟍⊃ " groove and secure with the split washer ③.
3) While inserting the LED bracket assembly ② harness into the chassis hole, fit it onto the chassis shaft. Push the bracket mounting claw into the main cam axle and secure with the screw ① (1.5 ± 0.2 kg).
4) Solder the LED harness to the mechanism F-PCB on the chassis back (be sure to connect the red harness to the F-PCB (R) side and the white harness to the (W) side).
6) Mount the idler gear assembly as explained in section 2-9.
7) Mount the BT lever assembly as explained in section 2-8.
8) Mount the cassette mechanism as explained in section 2-1.

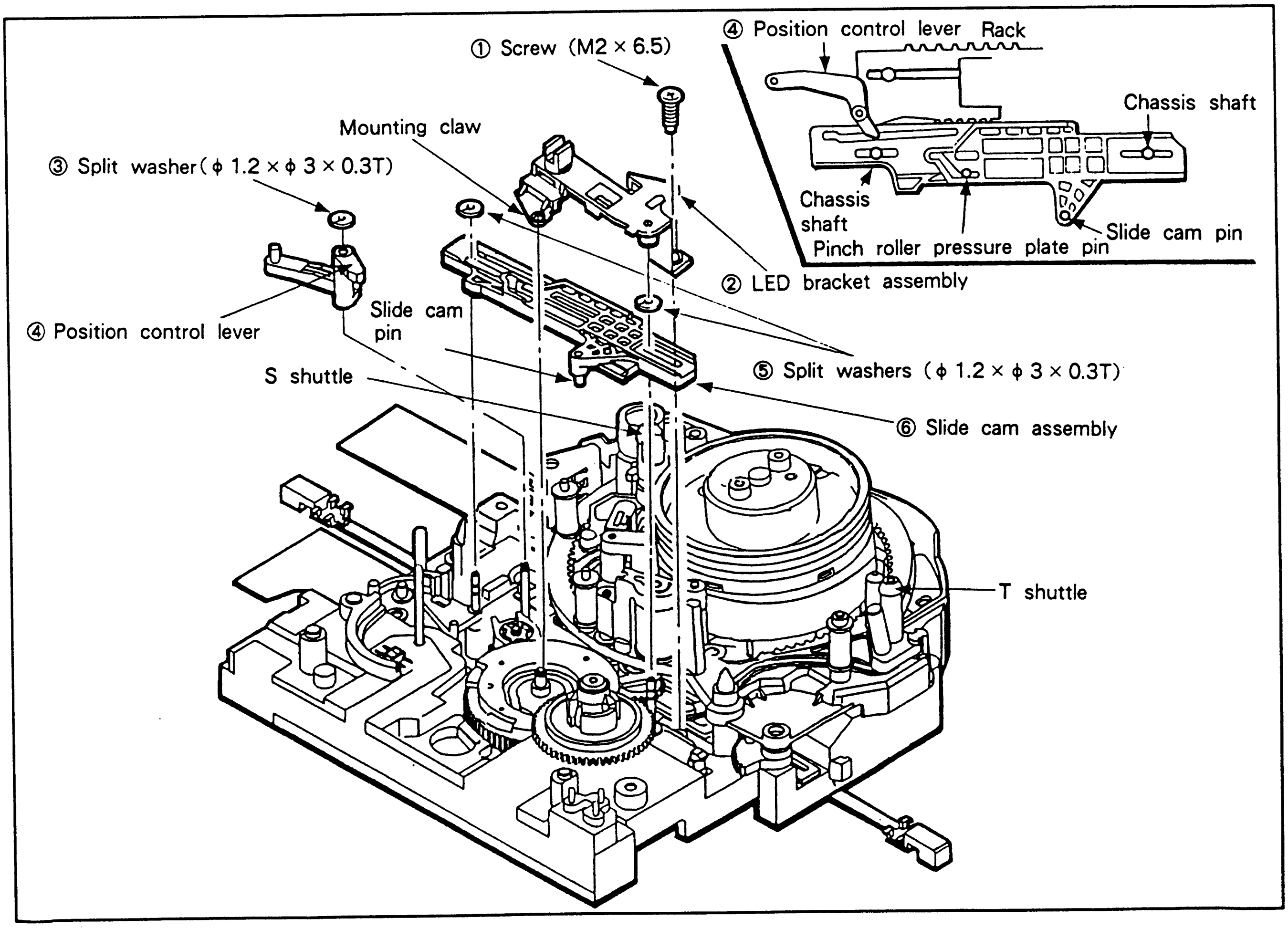

① Screw (M2 × 6.5)
Mounting claw
③ Split washer(ϕ 1.2 × ϕ 3 × 0.3T)
④ Position control lever
Slide cam pin
S shuttle
④ Position control lever
Rack
Chassis shaft
Chassis shaft
Slide cam pin
Pinch roller pressure plate pin
② LED bracket assembly
⑤ Split washers (ϕ 1.2 × ϕ 3 × 0.3T)
⑥ Slide cam assembly
T shuttle

Fig. 2-10.

2-11. LEFT PRELOAD ASSEMBLY

1. Removal

1) Remove the special screw ①, the upper flange ②, the guide ③ and the compression spring ④.
2) Remove the special screw ⑤ and the screw ⑥.
3) Pull the left preload assembly ⑦ up and remove it, taking care not to touch the cylinder with it.

2. Mounting

1) With the left preload assembly ⑦ shaft pulled all the way towards you, fit it onto the TG3 shaft ⑧ preventing it from touching the cylinder. Confirm that the left preload gear toothless section engages with the rack as shown in Fig. 2-11.
2) Tighten the special screw ⑤ loosely, then tighten screws to a torque of 2 kg-cm starting from the screw ⑥.
3) Fit the compression spring ④, the guide ③ and the upper flange ② onto the TG3 shaft ⑧, then tighten the special screw ①.

Note : Take care not to scratch the cylinder when working with a screwdriver, etc.

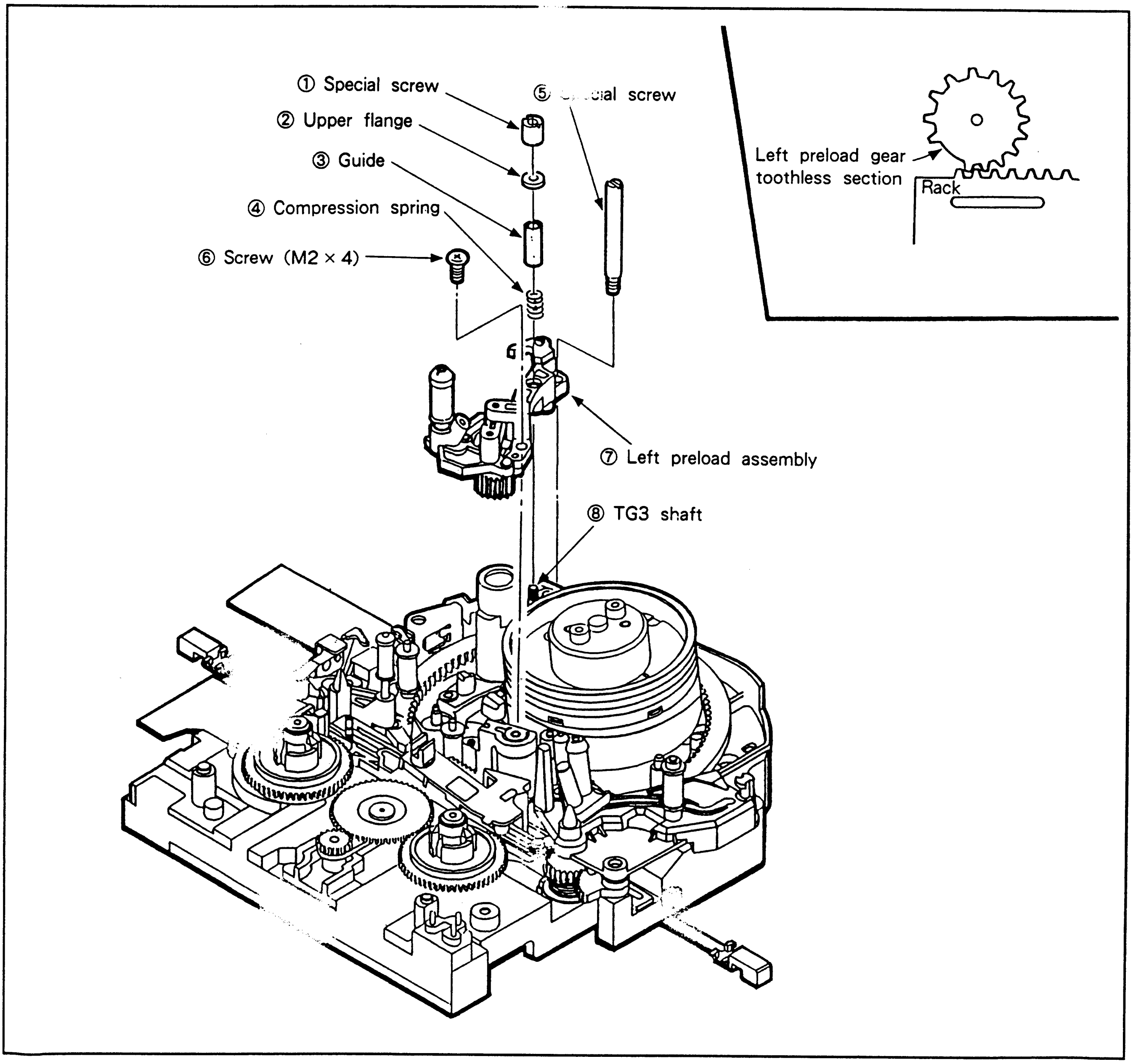

① Special screw
② Upper flange
③ Guide
④ Compression spring
⑥ Screw (M2 × 4)
⑤ Special screw
6
⑦ Left preload assembly
⑧ TG3 shaft
Left preload gear toothless section
Rack

Fig. 2-11.

2-12. LOADING RING ASSEMBLY

1. Removal

1) Remove the cassette mechanism as explained in section 2-1.
2) Perform the loading operation of the S and T shuttles with the mode selector, and stop just before they make contact.
3) Remove the split washer ①, then pull the gear assembly ② up and remove it.
4) Remove the screws ③ (one) and ④ (three), then remove the ring supporting plates ⑤, ⑥ and ⑦, as well as the three ring rollers ⑧.
5) Lift the loading ring assembly ⑨ up, taking care not to touch the cylinder, and remove it from the chassis.

2. Mounting

1) Fit the three ring rollers ⑧ onto their corresponding axles.
2) Mount the loading ring assembly ⑨, with the pinch roller placed on the LED bracket assembly upper side, so that the ring inner circumference makes contact with the ring roller outer circumference.
3) Secure the ring supporting plates ⑤, ⑥ and ⑦ with the screws ③ (one) and ④ (three), tightening them to a torque of 2 kg-cm.
4) Fit the gear assembly ② partially onto the chassis axle, then turn the ring assembly clockwise so that TG8 ⑩ makes contact with the ring supporting plate ⑦, make the gear assembly ② engage with the loading ring assembly and secure it with the split washer ①.
5) Mount the cassette mechanism as explained in section 2-1.

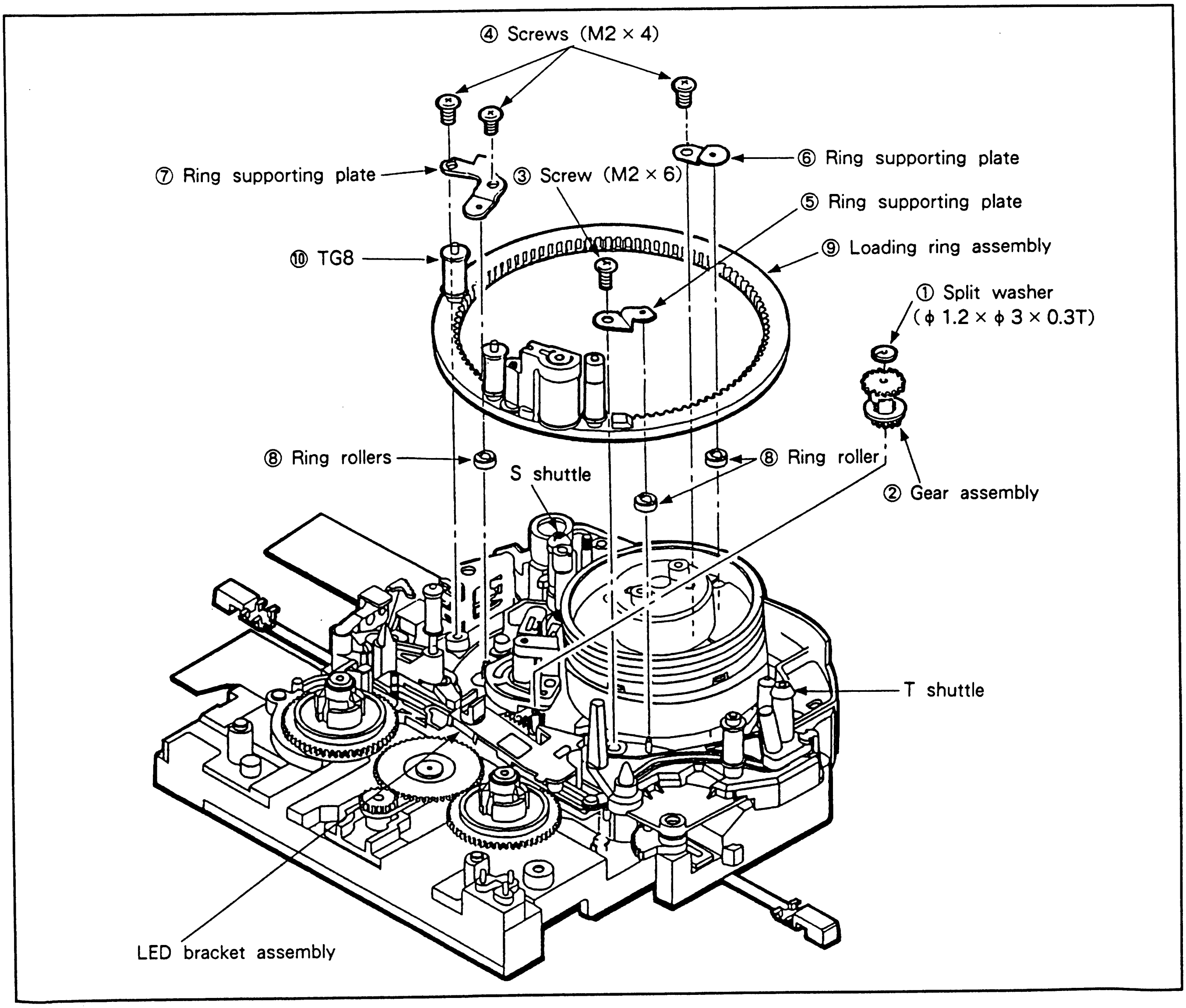

④ Screws (M2 × 4)
⑦ Ring supporting plate
③ Screw (M2 × 6)
⑥ Ring supporting plate
⑤ Ring supporting plate
⑩ TG8
⑨ Loading ring assembly
① Split washer
(ϕ 1.2 × ϕ 3 × 0.3T)
⑧ Ring rollers
S shuttle
⑧ Ring roller
② Gear assembly
T shuttle
LED bracket assembly

Fig. 2-12.

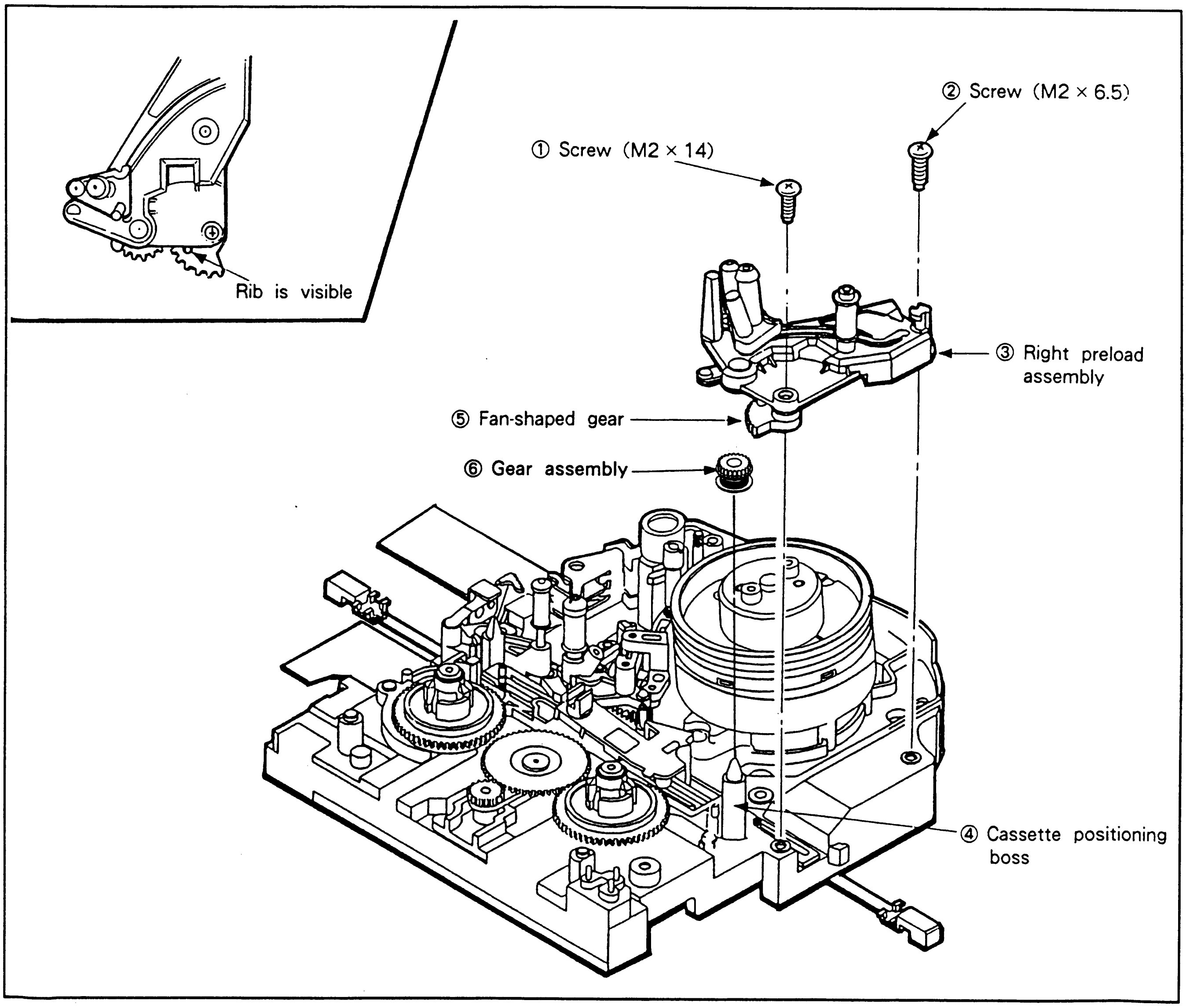
2-13. RIGHT PRELOAD ASSEMBLY

1. Removal

1) Remove the cassette mechanism as explained in section 2-1.
2) Remove the loading ring as explained in section 2-12.
3) Remove screws ① and ②.
4) Lift the right preload assembly ③ up and remove it from the chassis.
5) Remove the gear assembly ⑤ from the cassette positioning boss ④.

2. Mounting

1) Set the unit back to the LOAD/UNLOAD mode with the mode selector.
2) Mount the gear assembly ⑥ with its white gear facing down, then align the line joinig the cassette positioning boss ④ and the white gear notch with the pin securing the rack.
3) With its T shuttle pulled all the way towards you, fit the right preload assembly ③ onto the cassette positioning boss ④, then turn it clockwise a little and push it all the way down. Once the fan-shaped gear ⑤ has engaged, adjust the mounting position.
4) Tighten the screw ① loosely, then tighten screws to a torque of 1.5 ± 0.2 kg-cm starting from the screw ②.
5) After mounting, confirm that the T shuttle bracket returns all the way towards you when pushed in the loading direction and then released.
6) Mount the loading ring as explained in section 2-12.
7) Mount the cassette mechanism as explained in section 2-1.



• Fig. 2-13.

2-14. FLEXIBLE BOARD

1. Removal

1) Remove the cassette mechanism as explained in section 2-1.
2) Follow instructions in section 2-10 up to the removal of the slide cam assembly.
3) Remove the T reel table ①.
4) Remove the split washer ②, then remove the main cam ③.
5) Remove the recognition switch ④ and mode switch ⑤ hooks from the chassis.
6) Remove the two screws ⑥ from the chassis back, then remove the loading motor assembly ⑦.
7) Detach the flexible board assembly ⑧.

Note : Take care not to rip the flexible board.

2. Mounting (for new board)

1) Solder all parts.
2) Insert the recognition switch ④ hooks lightly into the chassis to secure the switch.
3) Detach the back side tape ⑨, place FPC hole so that the shaft (for the reel table) goes into it, then align the reel table sensor to the chassis slot and attach FPC so that it is perfectly flat.
4) Insert the mode switch hooks lightly into the chassis to secure the switch.
5) Detach the back side tape ⑩, then attach FPC to the chassis back.
6) Secure the loading motor assembly with the two screws ⑥ (tightening torque : 1.5 ± 0.2 kg-cm).
7) Detach the back side tape ⑪, align FPC hole to the chassis back side boss and attach it.
8) Mount the main cam ③ and secure it with the split washer ②.
9) Perform phase matching of the main cam and the gear as explained on next page.
10) Mount the T reel table ①.
11) Mount the slide cam assembly as explained in section 2-10 1).
12) Mount the cassette mechanism as explained in section 2-1.

Note : When attaching FPC, push it down with an applicator etc. so that it remains perfectly flat.
Be careful not to touch the adhesive part of FPC.

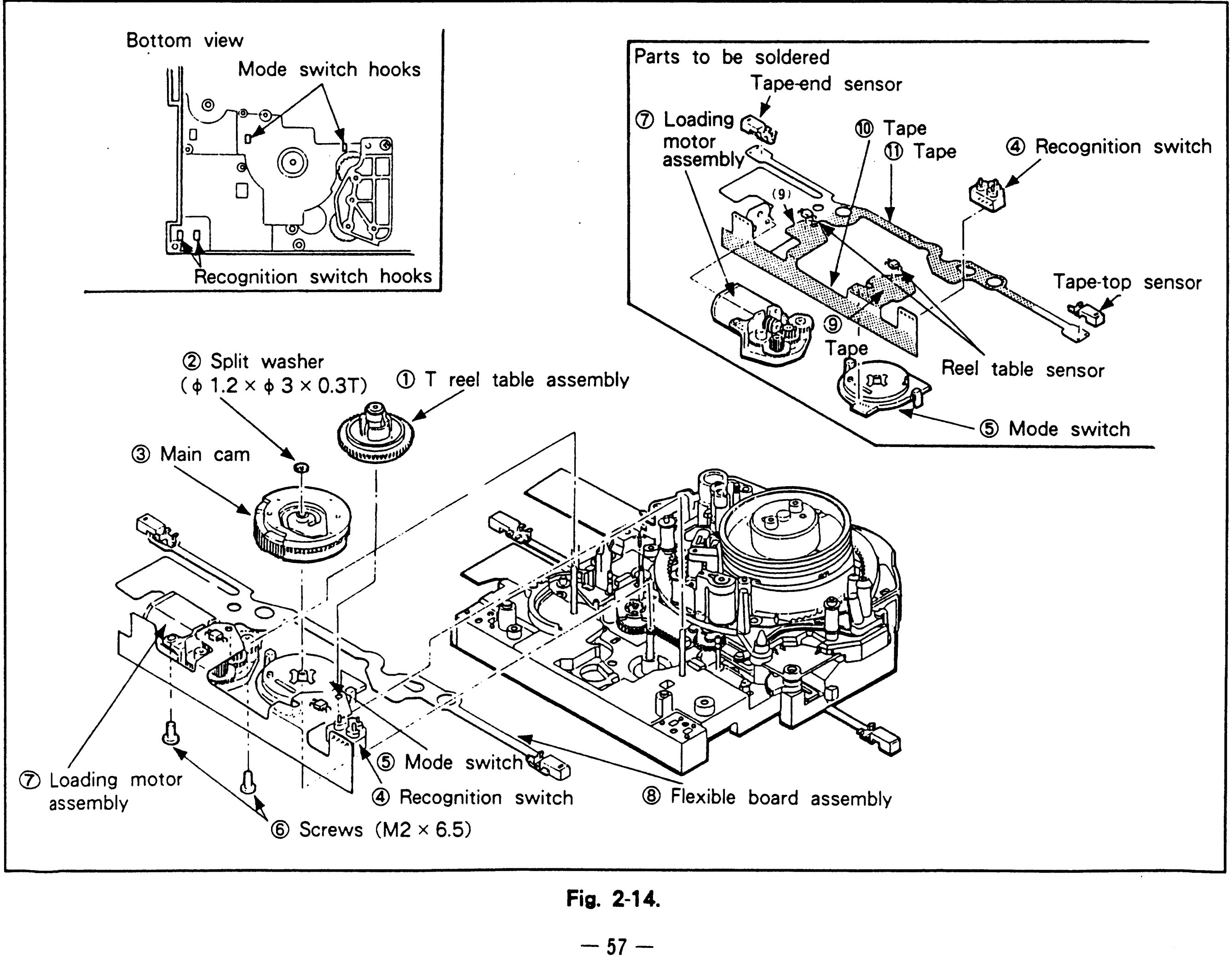

Bottom view
Mode switch hooks
Recognition switch hooks
Parts to be soldered
Tape-end sensor
⑦ Loading motor assembly
⑩ Tape
⑪ Tape
④ Recognition switch
(9)
Tape-top sensor
⑨ Tape
Reel table sensor
⑤ Mode switch
② Split washer (ϕ 1.2 × ϕ 3 × 0.3T)
① T reel table assembly
③ Main cam
⑤ Mode switch
⑦ Loading motor assembly
④ Recognition switch
⑧ Flexible board assembly
⑥ Screws (M2 × 6.5)

Fig. 2-14.

2-15. MAIN CAM/GEAR PHASE MATCHING

1) When fitting gear 2 onto the chassis shaft, point the 凸 mark on gear 1 in the Y-axis direction and the two gear flanges of the gear 2 in the mode switch circumference direction.
2) When fitting gear 3 onto the chassis shaft, align the rack to the chassis right edge, and point the 凹 mark between both flanges in the mode switch circumference direction.
3) When fitting the main cam onto the chassis shaft, align the mode switch rotating plate pin with the base triangle mark, then place the main cam toothed section to the lower left and align the switch positioning pins with the main cam positioning holes.

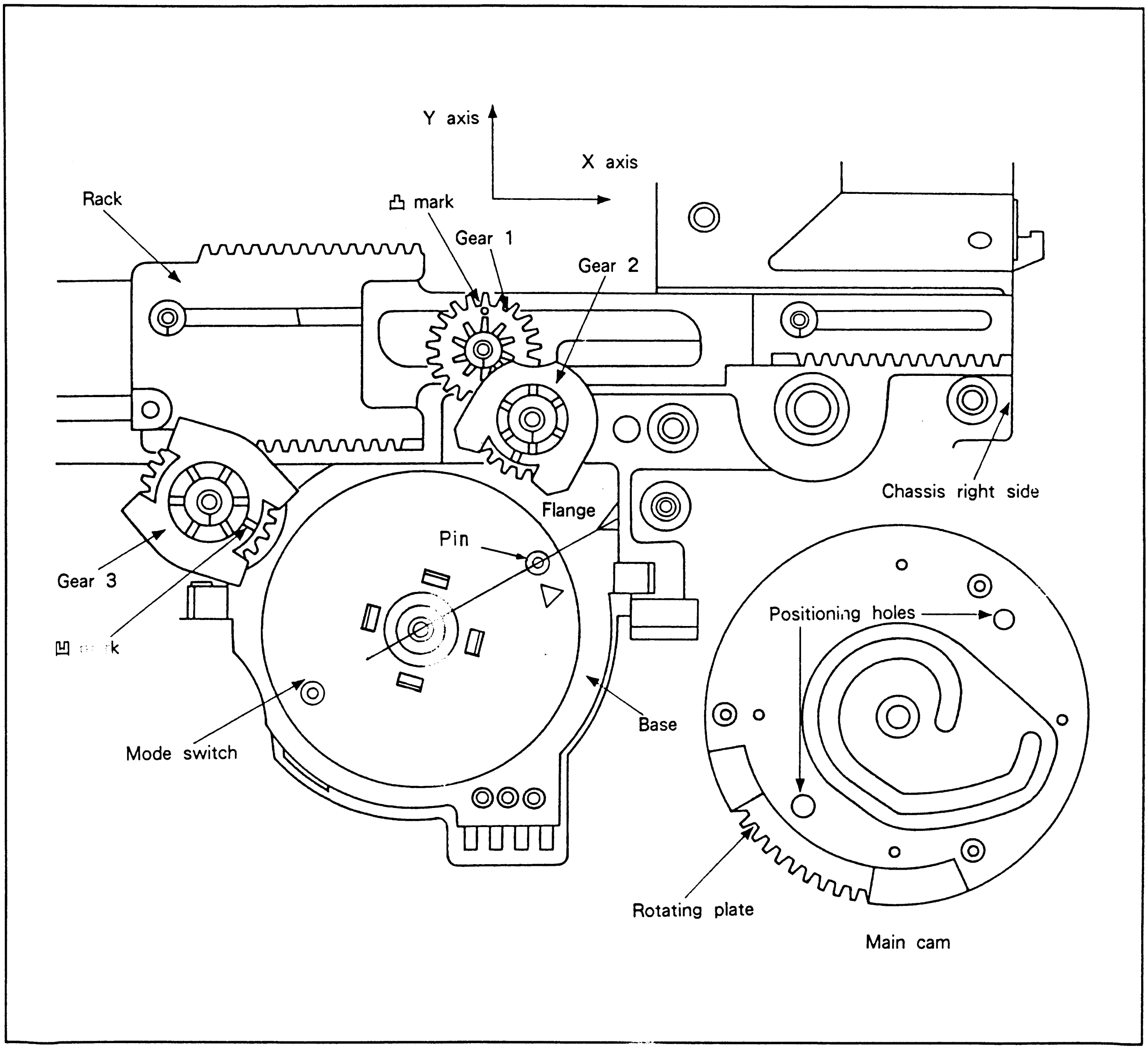

Y axis
X axis
Rack
凸 mark
Gear 1
Gear 2
Chassis right side
Flange
Pin
Gear 3
凹 mark
Positioning holes
Base
Mode switch
Rotating plate
Main cam

Fig. 2-15.

2-16. CAPSTAN MOTOR

1. Removal

1) Turn the mechanism upside down and remove the timing belt from the idler assembly pulley.
2) Remove the two screws ①, then remove the timing belt assembly ②.
3) Set the mechanism upright again and remove the two small screws ③.
4) Pull the capstan motor ④ down from the chassis and remove it taking care that its axle does not touch other parts.

2. Mounting

1) Insert the capstan motor ④ into the chassis back, then secure it loosely with the screws ③ on the front side.
2) Tighten the screws ③, starting from the one on the rear. (tightening torque : 2 ± 0.2 kg-cm).
3) Turn the mechanism upside down and place the timing belt assembly ② belt around the idler gear assembly pulley.
4) Tighten the two screws ① loosely, then tighten them to a torque of 2 ± 0.2 kg-cm starting from the one on the rear.

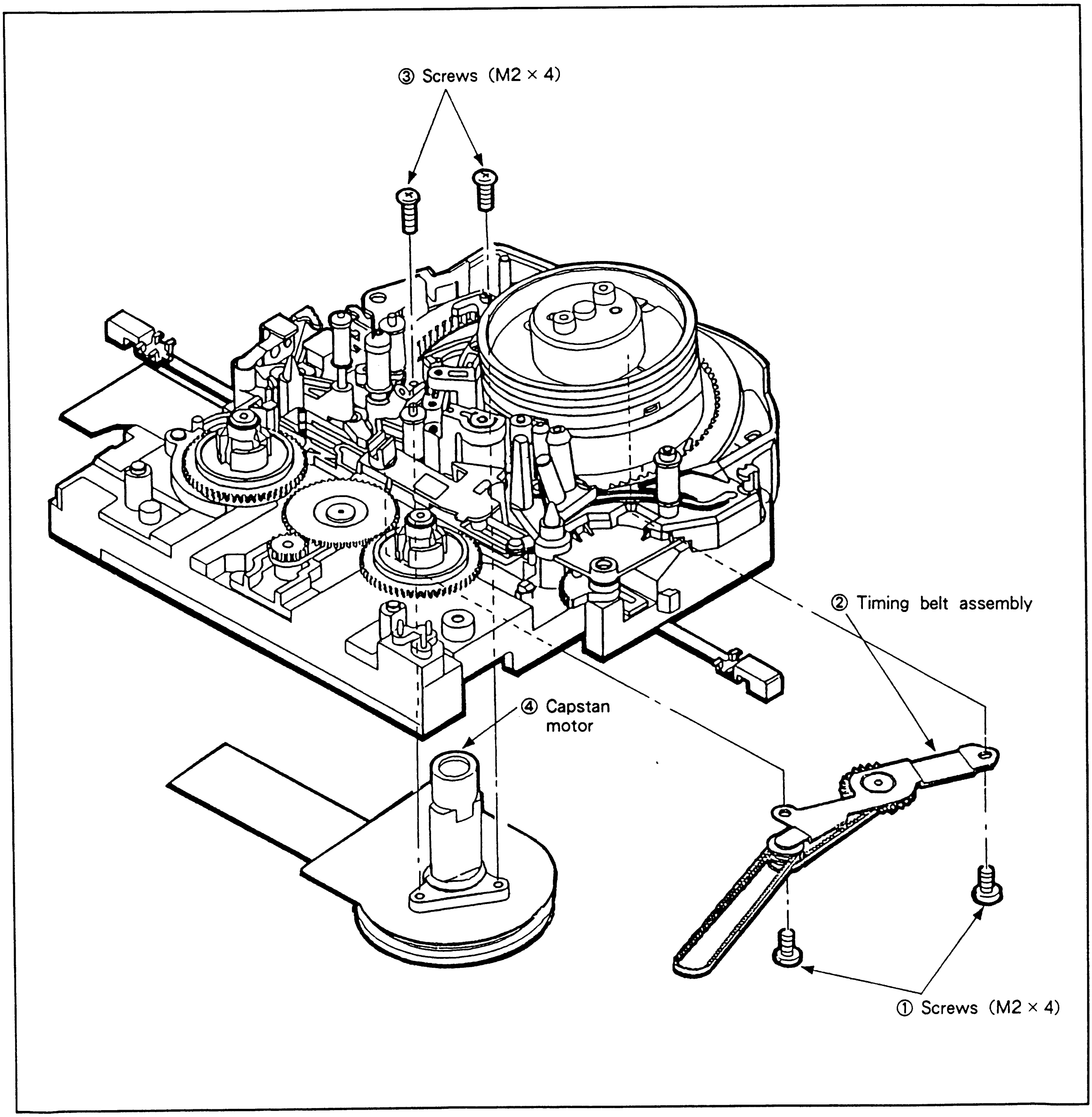


Fig. 2-16.

2-17. CYLINDER

1. Removal

1) Remove the two screws ① and the two compression springs ②, then tilt the cylinder slightly to the right so that it does not touch the guides and the special screws and remove it while holding the four harnesses to prevent them from getting caught.

Note : Always wear fingerstalls for this procedure.

2. Mounting

1) Insert the four harnesses into the respective holes, then place the cylinder on the chassis aligned to the positioning pins ③, while slightly tilting it to the right so that it does not touch the guides and the special screws.
2) Insert the two compression springs ②, tighten screws ① loosely starting from the left one, then tighten them to a torque of 1 ± 0.2 kg-cm.

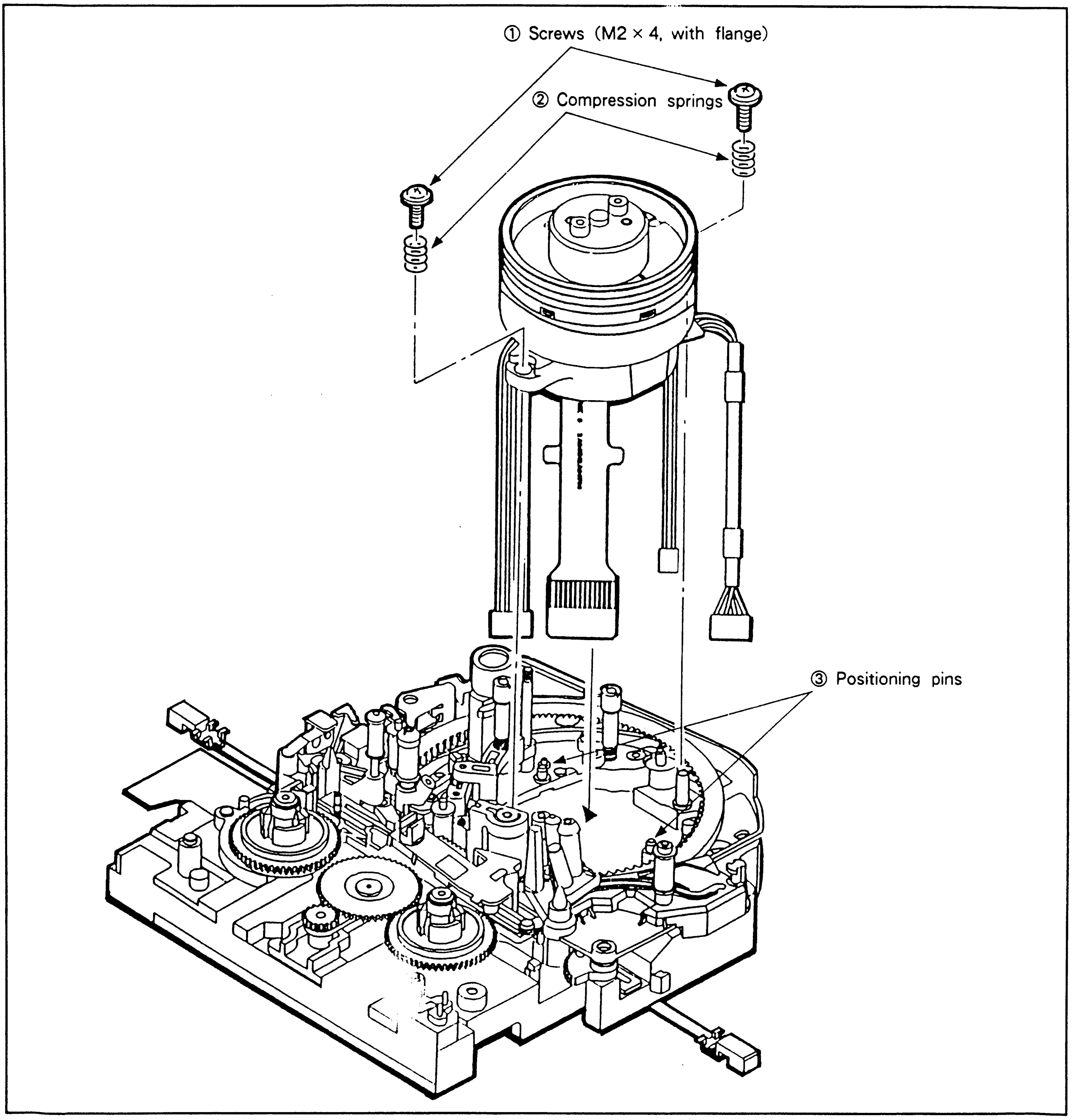


Fig. 2-17.

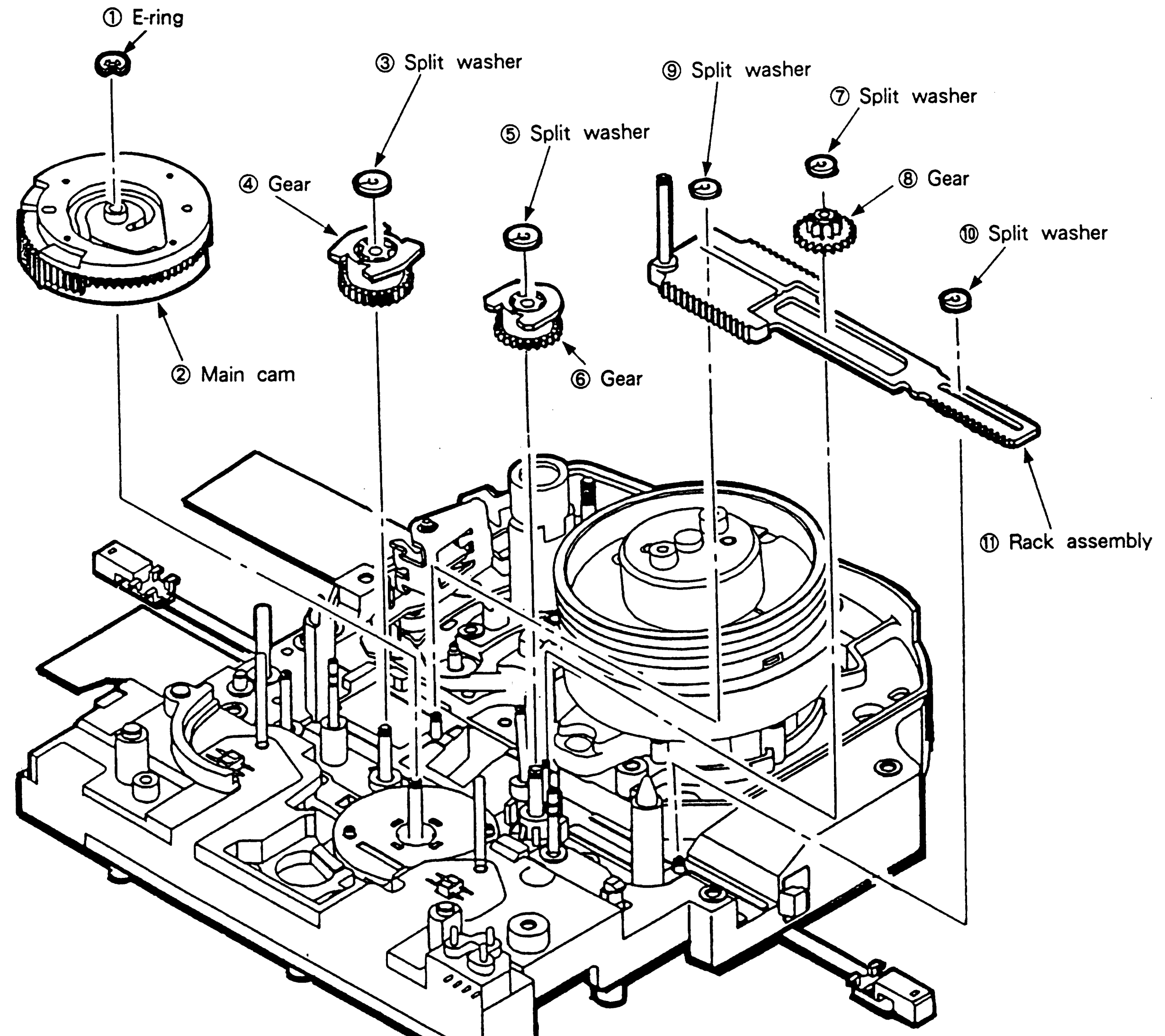
2-18. RACK ASSEMBLY

1. Removal

1) Remove the cassette mechanism as explained in section 2-1.
2) Follow instructions in section 2-10 up to the removal of the slide cam assembly.
3) Remove the E-ring ①, then remove the main cam ②.
4) Remove the split washer ③, then remove the gear ④.
5) Remove the split washer ⑤, then remove the gear ⑥.
6) Remove the split washer ⑦, then remove the gear ⑧.
7) Remove the split washers ⑨ and ⑩, then remove the rack assembly ⑪.

2. Mounting

1) Insert the chassis pins into the two slots on the rack assembly ⑪, then secure with the split washers ⑨ and ⑩.
2) Mount gears ⑧, ⑥ and ④ and the main cam ② following the instructions for phase matching of them in section 2-15.
3) Secure gears with split washers, and the main cam with an E-ring.
4) Mount the slide cam assembly as explained in section 2-10.
5) Mount the cassette mechanism as explained in section 2-1.


① E-ring
③ Split washer
⑨ Split washer
⑦ Split washer
⑤ Split washer
④ Gear
⑧ Gear
⑩ Split washer
② Main cam
⑥ Gear
⑪ Rack assembly

* Split washer ⑦, ⑨, ⑩ : ϕ 1.2 × ϕ 3 × 0.3T
Split washer ③, ⑤ : ϕ 1.2 × ϕ 3 × 0.4T

Fig. 2-18.

2-19. CYLINDER CHASSIS

1. Removal

1) Remove the cassette mechanism as explained in section 2-1.
2) Remove the loading ring assembly as explained in section 2-12.
3) Remove the right preload assembly as explained in section 2-13.
4) Turn the mechanism upside down and remove the timing belt from the idler assembly pulley.
5) Place the mechanism upright again and remove the three screws ①.
6) Remove the cylinder chassis ② taking care not to touch the cylinder and the guides.

2. Mounting

1) Align the positioning holes ④ with the positioning pins ⑤ and mount the cylinder chassis on the reel chassis so that the timing belt ③ on the free side of the timing belt assembly passes through the bridge on the reel chassis back.
2) Loosely tighten two of the three screws ①, then tighten them all to a torque of 1.5 ± 0.2 kg-cm starting from the other one.
3) Turn the mechanism upside down and place the timing belt around the idler assembly pulley.
4) Mount the right preload assembly as explained in section 2-13.
5) Mount the loading ring assembly as explained in section 2-12.
6) Mount the cassette mechanism as explained in section 2-1.

Note : Be sure to confirm that the timing belt is not twisted.
Never touch the cylinder and guides with your bare hands.

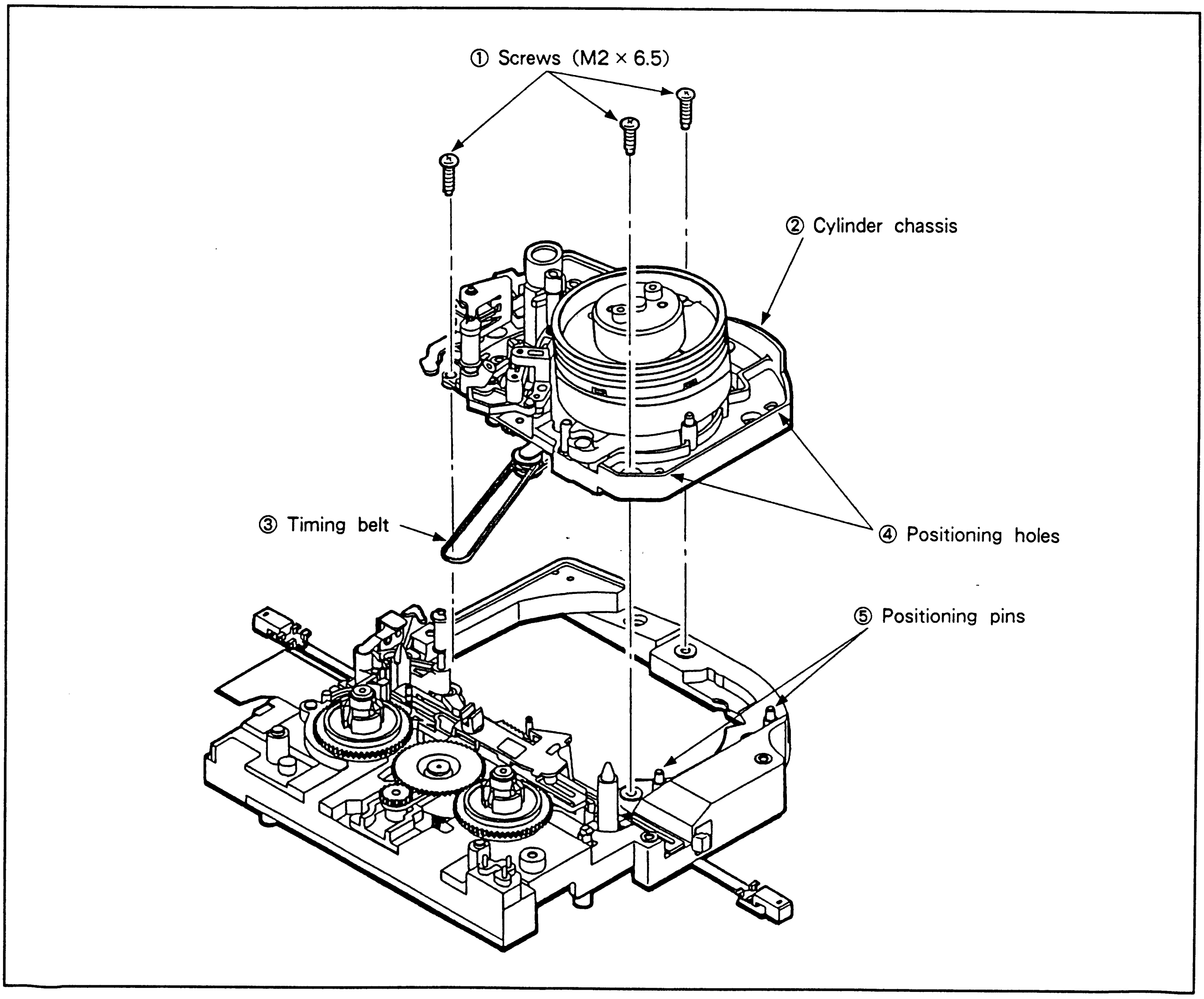


Fig. 2-19.

2-20. TG4 ASSEMBLY

1. Removal

1) Remove the special screw ①, the upper flange ②, the guide ③ and the compression spring ④.

Note : Never touch the upper flange and guide with your bare hands. Also, take care not to scratch the cylinder when working with a screwdriver, etc.

2. Mounting

1) Fit the compression spring ④, the guide ③ and the upper flange ② onto the TG4 shaft ⑤, then secure with the special screw ①.

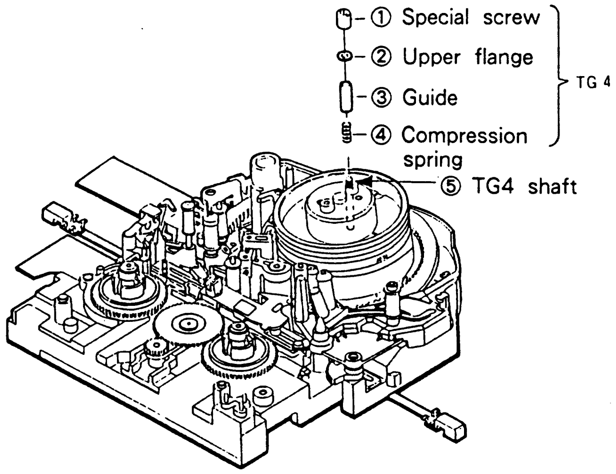

① Special screw
② Upper flange
③ Guide
④ Compression spring
TG 4
⑤ TG4 shaft

Fig. 2-20.

2-21. TG5

1. Removal

1) Remove the screw ①, then remove the TG5 assembly ②.

Note : Never touch the TG5 guide surface with your bare hands. Also, take care not to scratch the cylinder when working with a screwdriver, etc.

2. Mounting

1) Insert the cylinder chassis positioning pins (two) into the TG5 assembly ② positioning holes, then secure with the screw ① (tightening torque : 1.5 ± 0.2 kg).

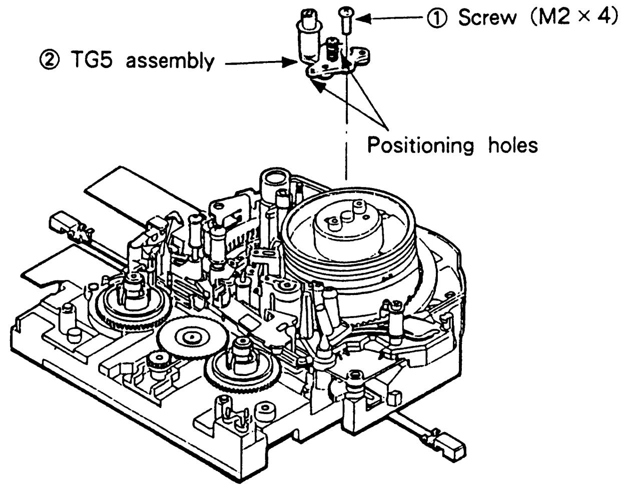

① Screw (M2 × 4)
② TG5 assembly
Positioning holes

Fig. 2-21.

2-22. S AND T SOFT BRAKES

1. Removal

1) Remove the cassette mechanism as explained in section 2-1.
2) Follow instructions in section 2-10. up to the removal of the slide cam assembly.
3) Remove the split washer ①, then remove the S soft brake ② and the torsion spring ③.
4) Remove the spring ④ and the split washer ⑤, then remove the T soft brake ⑥.

2. Mounting

1) Fit the T soft brake ⑥ onto the chassis pin, then hook the spring ④ and secure with the split washer ⑤.
2) Hook one end of the torsion spring into the S soft brake ② slot ⑦, then secure with the split washer ① so that the other spring end comes into the chassis hole.
3) Mount the slide cam assembly as explained in section 2-10.
4) Mount the cassette mechanism as explained in section 2-1.

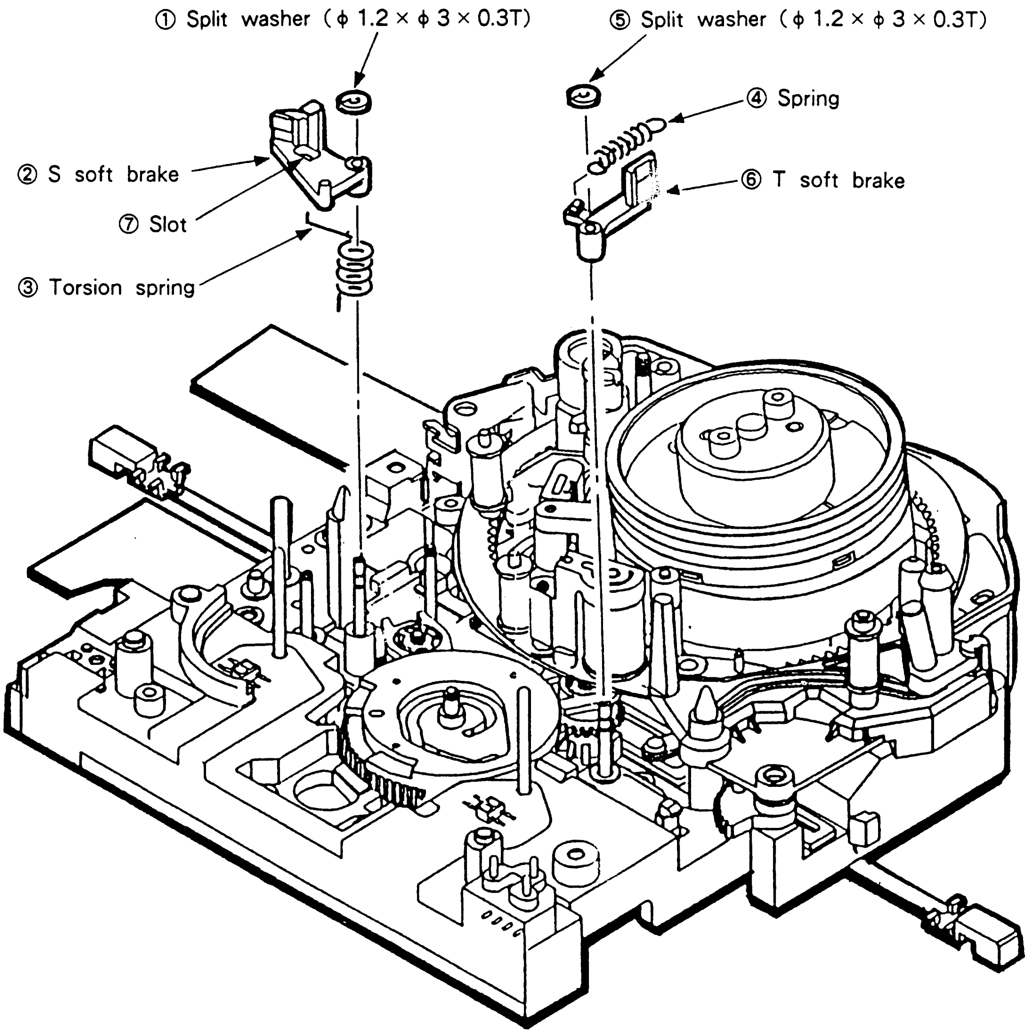

① Split washer (ϕ 1.2 × ϕ 3 × 0.3T)
⑤ Split washer (ϕ 1.2 × ϕ 3 × 0.3T)
④ Spring
② S soft brake
⑥ T soft brake
⑦ Slot
③ Torsion spring

Fig. 2-22.

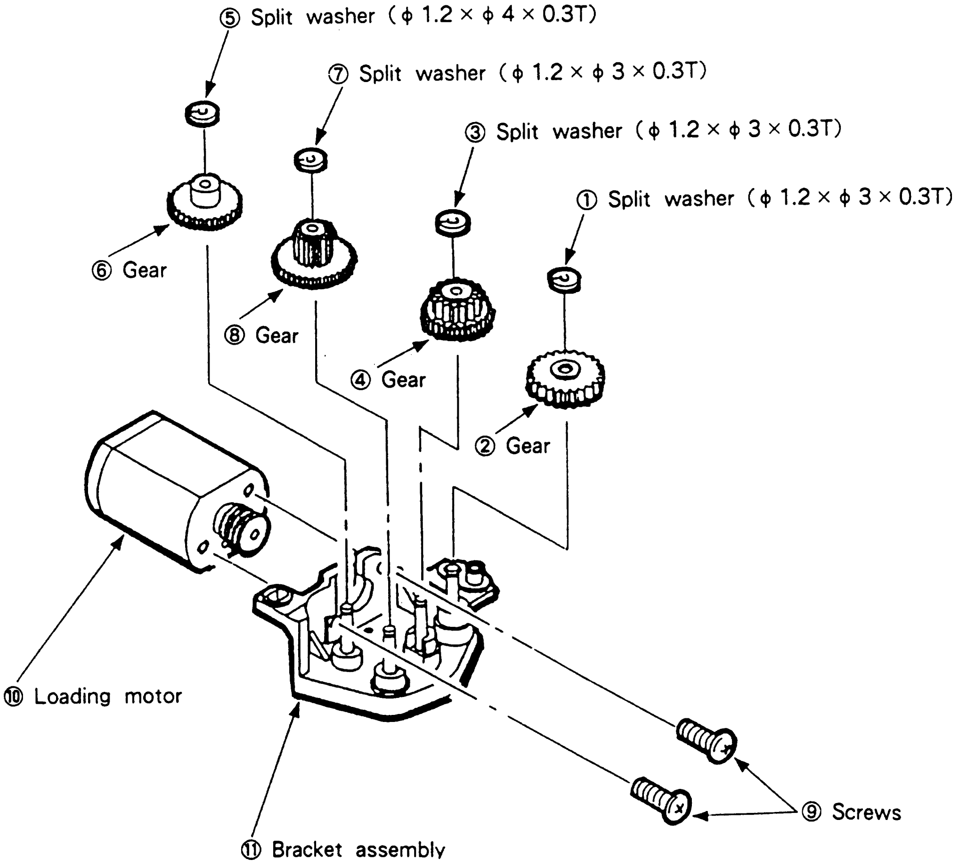
2-23. LOADING MOTOR

1. Removal

1) Follow instructions in section 2-14. up to the removal (unsoldering) of the loading motor assembly from the flexible board assembly.
2) Remove the split washer ①, then remove the gear ②.
3) Remove the split washer ③, then remove the gear ④.
4) Remove the split washer ⑤, then remove the gear ⑥.
5) Remove the split washer ⑦, then remove the gear ⑧.
6) Remove the two screws ⑨, then remove the loading motor ⑩.

2. Mounting

1) Place the loading motor with its nameplate facing down, mount it onto the bracket assembly ⑪ and secure it with the two screws ⑨ (tightening torque : 1.5 ± 0.2 kg-cm).
2) Fit the gear ⑧ and secure it with the split washer ⑦.
3) Fit the gear ⑥ and secure it with the split washer ⑤.
4) Fit the gear ④ and secure it with the split washer ③.
5) Fit the gear ② and secure it with the split washer ①.
6) Solder the loading motor assembly to the flexible board assembly.
7) Follow instructions in section 2-14. up to mounting of the cassette mechanism.



⑤ Split washer (ϕ 1.2 × ϕ 4 × 0.3T)
⑦ Split washer (ϕ 1.2 × ϕ 3 × 0.3T)
③ Split washer (ϕ 1.2 × ϕ 3 × 0.3T)
① Split washer (ϕ 1.2 × ϕ 3 × 0.3T)
⑥ Gear
⑧ Gear
④ Gear
② Gear
⑩ Loading motor
⑪ Bracket assembly
⑨ Screws

Fig. 2-23.

2-24. BT (TG1) GUIDE POSITION ADJUSTMENT

1) Turn the cassette holder up, insert the P6-120 tape (completely wound up) into the holder, load it and playback.
2) Confirm that the tape between the BT guide and the cassette hub (shaded portion) is not in contact with the cassette half, as shown in Fig. 2-24.
3) If there is contact, loosen the screw securing the BT slide, insert a screwdriver into the BT slide slit and adjust by shifting it in the direction of arrow.
4) If no adjustment problems occur, tighten the screw manually, set to the EJECT mode and remove the cassette (tightening torque : 1.3 ± 0.2 kg-cm).

Note : Adjust the BT slide finely so that clearance between the tape and the cassette half when playing a completely wound-up tape is 0.2 to 0.4 (measured with the BT lever in its innermost position).

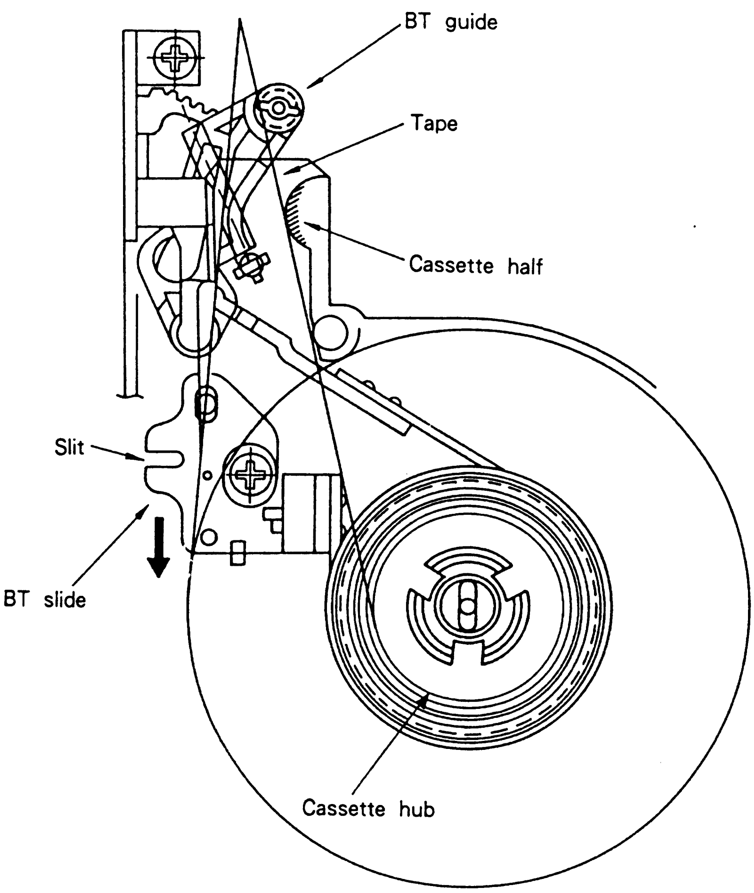


Fig. 2-24.

2-25. FWD BACK TENSION ADJUSTMENT

After completing tension regulator (# 1) guide position adjustment, load a FWD/RVS winding torque measuring cassette, playback the tape and hook the spring on the tension regulator spring bearing plate as indicated below so that winding torque at the Supply reel table is 10 ± 1 g-cm.

Torque higher than the specified value
…in the direction of arrow B
Torque lower than the specified value
…in the direction of arrow C

Note: Always perform this adjustment after replacing the tension regulator band.

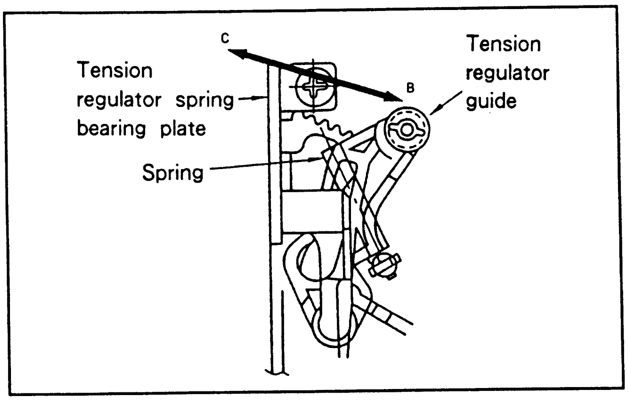


Fig. 2-25. FWD Back Tension Adjustment

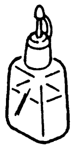
2-26. FWD/RVS TORQUE CHECK

1) Mount the FWD and RVS winding torque cassette (J-6080-824-A).
2) Select the FWD mode and check that the torque value on the T reel side is 12.5 ± 2.5 g-cm.
3) Select the REC REVIEW mode and check that the torque value on the S reel side is 20 ± 4 g-cm.
4) Replace the reel tables if the above values are not satisfied.

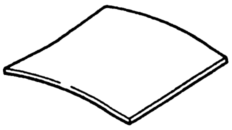
2-27. LIST OF SERVICING JIG

Ref. No.	Parts name	Parts cord	Fixture No.	Use
J-1	Cleaning fluid	Y-2031-001-0	–	
J-2	Chamois leather	2-034-697-00	–	
J-3	Dental mirror	J-6080-029-A	SL-5052	Tape path
J-4	Alignment tape (WR5-1C)	8-967-995-06		Tape path
J-5	Dial tension gauge	J-6080-827-A		Measuring torques
J-6	Tension measuring reel	J-6080-831-A		With φ 30 tape
J-7	FWD, RVS take-up torque cassette	J-6080-824-A	GD-2086	All adjustments
J-8	Mode selector	J-60[illegible]-825-A		
J-9	Shift track jig	VJ8-0029	–	Tape path

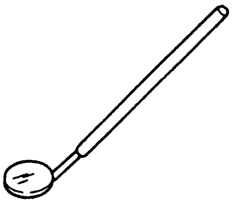
J-1



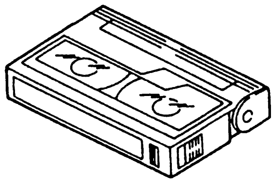
J-2



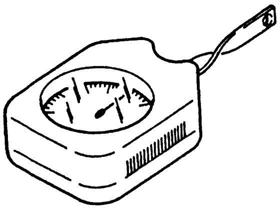
J-3



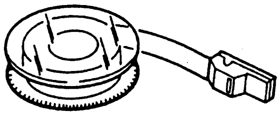
J-4



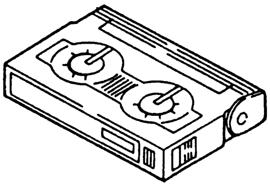
J-5



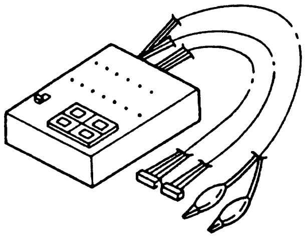
J-6



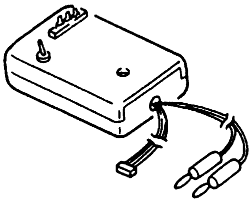
J-7



J-8



J-9



2-28. TAPE PATH ADJUSTMENT

- Make tape path adjustment after checking that electrical adjustment is made.

[Shift Track Jig]
8 mm video systems use ATF (Automatic Tracking Finding) for instantaneous control of the tape travel speed based on four pilot signals and high precision tracking. This eliminates the need for tracking adjustment knobs and provides an accurate trace. On the other hand however, adjustment of the tape path system can be difficult with this ATF system. This is because complete adjustment is not possible as the automatic correction is made by ATF even if the head trace is slightly off.

For this reason, the shift track jig (Ref. No. J-9) is used for adjustment of the tape path system. The shift track jig forcibly releases the ATF and allows precise adjustment of the tape path system as the tracking amount (track shift) can be set manually.

2-28-1. Preparation for Adjustment

1) Clean the parts on which the tape runs (tape guide, drum, capstan shaft and pinch roller).
2) Connect the shift track jig (Ref. No. J-9) to CN105 on the VD1 board. (Refer to Fig. 2-26.)
3) Connect the oscilloscope as shown in Fig. 2-26.
4) Short-circuit TP194 on the VD1 board and tast point for GND.

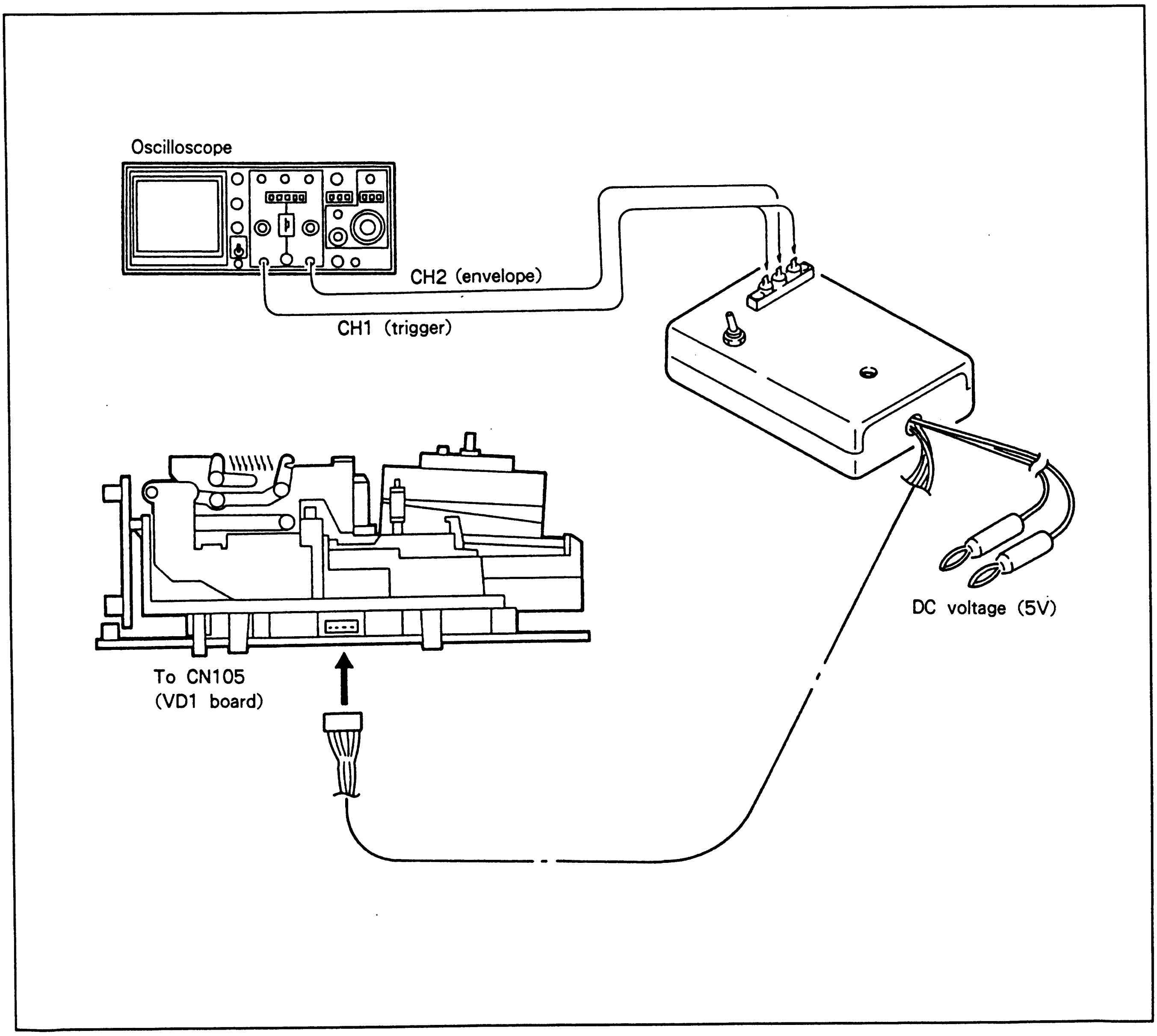
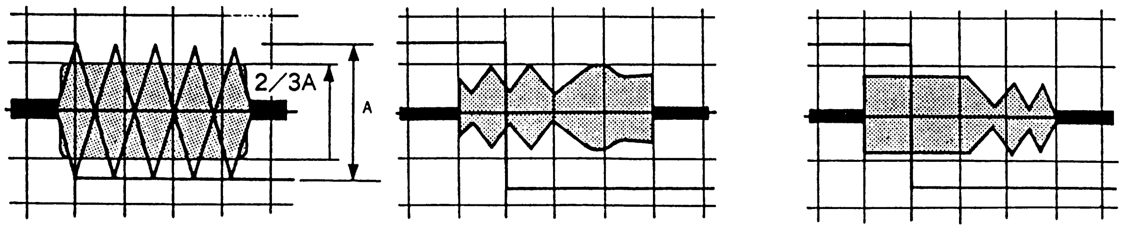


Fig. 2-26.

4) Turn the shift track jig shift switch ON, playback an alignment tape for tracking adjustment (WR5-1C) and turn the level volume on the shift track jig so that RF waveform amplitude becomes 2/3 of that obtained in CUE mode (see Fig. 2-27. ⓐ). Then confirm that RF waveform is flat at both the entrance and exit sides (Fig. 2-27. ⓐ). In case it is not, adjust as follows.

- If RF waveform on entrance side is not flat. (Fig. 2-27. ⓑ) ··· Adjust as instructed 2-28-4. Tracking Fine Adjustment after adjusting according to 2-28-2. Entrance Side Rough Adjustment.
- If RF waveform on exit side is not flat. (Fig. 2-27. ⓒ)... Adjust as instructed 2-28-4. Tracking Fine Adjustment after adjusting according to 2-28-3. Exit Side Rough Adjustment.



ⓐ Normal
RF Switching Pulse
ⓑ Entrance Side is Defective
ⓒ Exit Side is Defective

Fig. 2-27.

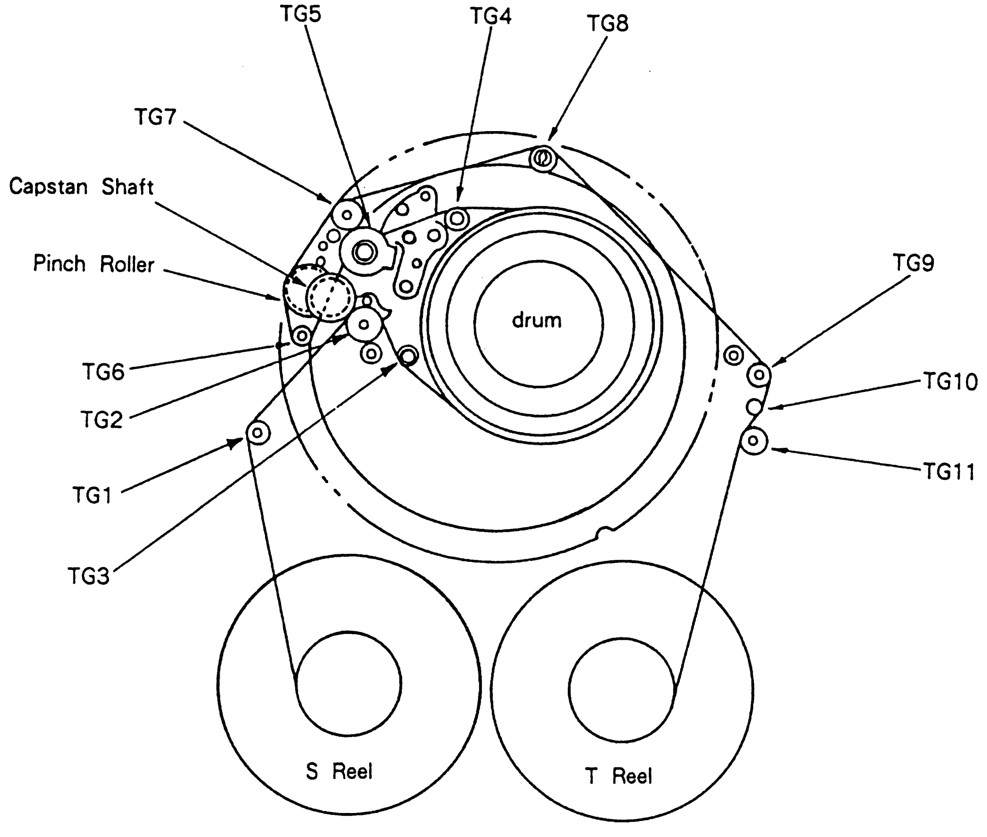

TG5
TG4
TG8
TG7
Capstan Shaft
Pinch Roller
TG9
drum
TG10
TG6
TG2
TG11
TG1
TG3
S Reel
T Reel

Fig. 2-28.

2-28-2. Entrance Side Rough Adjustment

- This adjustment is made with the shift switch of the shift track jig (Ref. No. J-9) ON.

1) Play back the tracking alignment tape, loose TG2 lock screw ①, rotate TG2 and TG3 counterclockwise, and free the tape run on the entrance side. (See Fig. 2-29.)

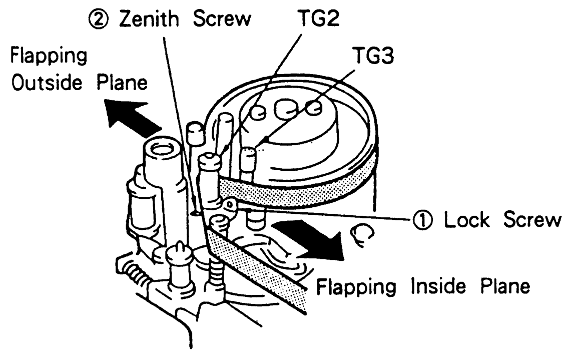

② Zenith Screw
TG2
TG3
Flapping Outside Plane
① Lock Screw
Flapping Inside Plane

Fig. 2-29.

Note : The space between the top and bottom flanges of TG2 is narrow. Check that the tape is contacting neither top nor bottom flanges this time. The tape contacts the bottom flange and the RF waveform on the entrance side will have more than 3.5 ridges (PAL) if TG2 is too loose.

2) Check that the RF waveform on the entrance side has 1 to 3.5 ridges (PAL) in this condition. If not, adjust as follows. (See Fig. 2-30.)

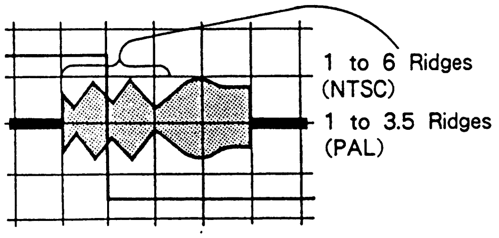

1 to 6 Ridges (NTSC)
1 to 3.5 Ridges (PAL)

Fig. 2-30.

Note : Do not touch the TG2 zenith screw ② since it has been preset at the factory. If off standard, adjust the height adjustment screw of the TG1 by turning it clockwise 90° at a time. (See Fig. 2-31.)

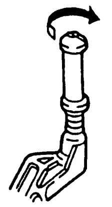


Fig. 2-31.

3) Slowly rotate TG2 clockwise to make the entrance side waveform nearly flat. (See Fig. 2-32.)
   Note : Do not rotate TG2 excessively.

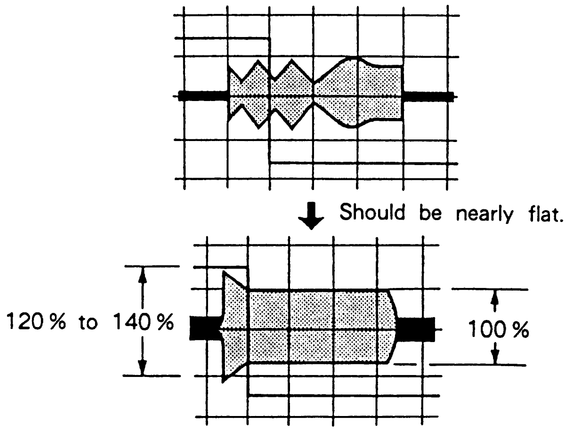

Should be nearly flat.
120 % to 140 %
100 %

Fig. 2-32.

4) Rotate TG3 clockwise to make the entrance side waveform completely flat. (See Fig. 2-33.)
5) Tighten TG2 lock screw ①. (See Fig. 2-29.)
   Note : As this is only the rough adjustment procedure, be sure to perform 2-28-4. Tracking Fine Adjustment after adjustment.

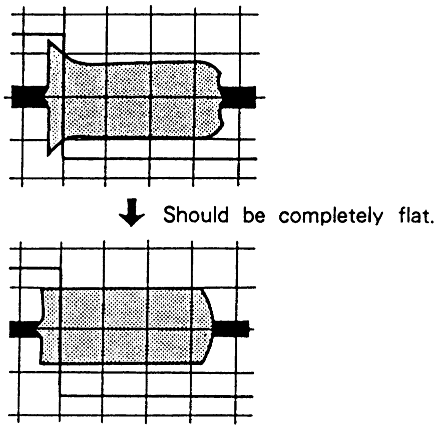

Should be completely flat.

Fig. 2-33.

2-28-3. Exit Side Rough Adjustment

- This adjustment is made with the shift switch of the shift track jig ON.

1) Play back the tracking alignment tape, rotate TG4 and TG5 counterclockwise, in order to make the tape running on the exit side free. (See Fig. 2-34.)

   Note :
   - If screw lock is stuck to the TG5 nut, it may prevent the nut from rotating. Rotate the guide after applying alcohol to the nut thread and dissolving the screw lock agent.
   - Check that the tape is not contacting the top flanges of TG5 during free tape running.

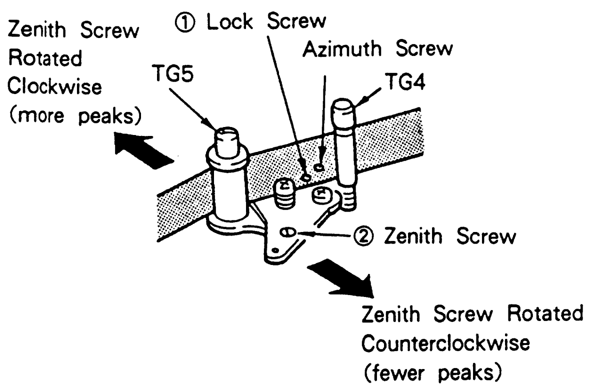

Zenith Screw Rotated Clockwise (more peaks)
① Lock Screw
Azimuth Screw
TG5
TG4
② Zenith Screw
Zenith Screw Rotated Counterclockwise (fewer peaks)

Fig. 2-34.

2) Check that the RF waveform on the exit side has 1 to 3 ridges (PAL). If not, readjust as follows. (See Fig. 2-35.)

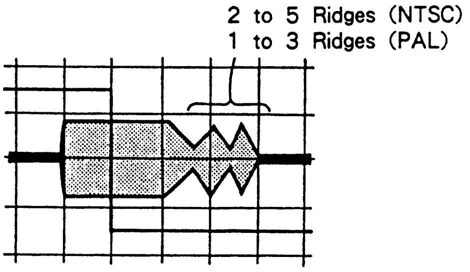

2 to 5 Ridges (NTSC)
1 to 3 Ridges (PAL)

Fig. 2-35.

If off standard

i) Rotate the lock screw ① counterclockwise 180° to loosen.

ii) Slowly rotate the zenith screw ② 15° at a time and wait until the RF waveform changes.

iii) Rotate the lock screw ① clockwise to tighten.

   Note :
   - The waveform changes if the lock screw is tightened too tightly. Tighten moderately.
   - Never rotate the azimuth screw of TG5.

3) Rotate TG5 clockwise to make the RF waveform on the exit side nearly flat.

   Note : The waveform reaction is slow to nut rotation. Rotate the nut after the waveform variations are stabilized.

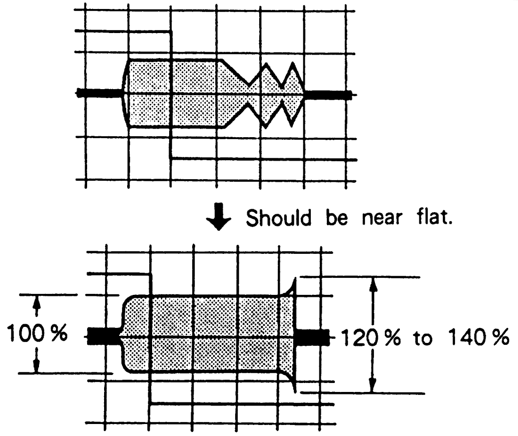

Should be near flat.
100 %
120 % to 140 %

Fig. 2-36.

4) Rotate TG4 clockwise to make the RF waveform on the exit side completely flat. (See Fig. 2-37.)

   Note : As this is only the rough adjustment procedure, be sure to perform 2-28-4. Tracking Fine Adjustment after adjustment.

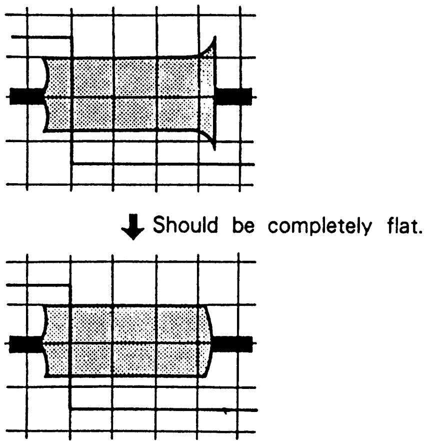

Should be completely flat.

Fig. 2-37.

2-28-4. Tracking Fine Adjustment

1) Play back the alignment tape for tracking adjustment, and after turning the shift switch ON, gradually rotate the level volume clockwise until RF waveform amplitude is 2/3 of that obtained in CUE mode.
   (Refer to Fig. 2-38.)
   Note : Rotate the variable resistor slowly as abrupt rotation will cause the servo to become disengaged. When the servo is no longer attracted, readjust after setting the shift switch to OFF once.

2) Make sure that the waveform is flat. If it is not flat, adjust by fine tuning the height of TG3 and TG4 to make it flat. (Refer to Fig. 2-39.)

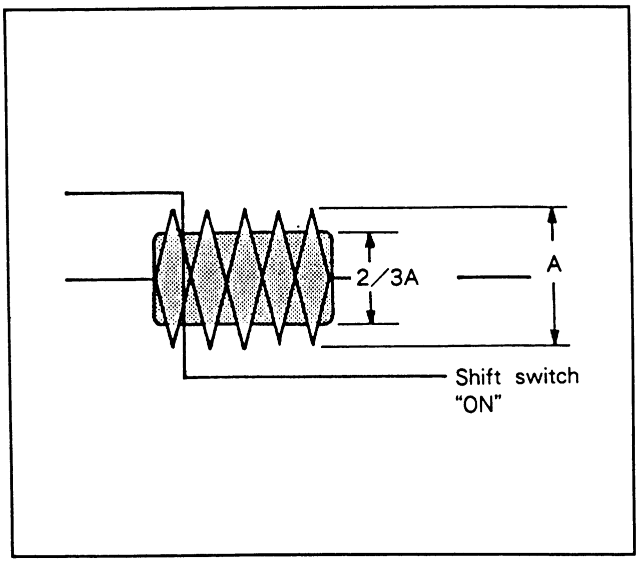

2/3A
A
Shift switch "ON"

Fig. 2-38.

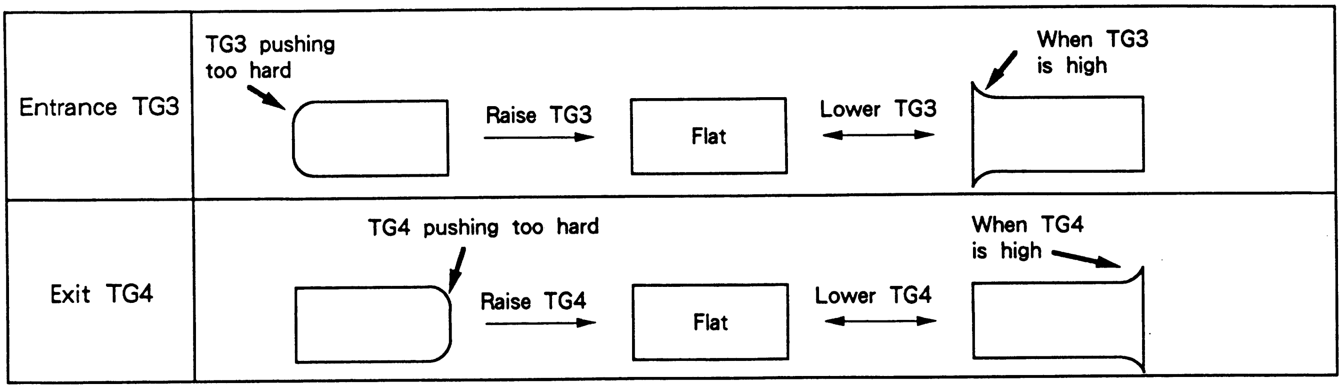

Entrance TG3
TG3 pushing too hard
Raise TG3
Flat
Lower TG3
When TG3 is high
Exit TG4
TG4 pushing too hard
Raise TG4
Flat
Lower TG4
When TG4 is high

Fig. 2-39.

3) Make sure that the minimum value (EMIN) of the amplitude is 75% or better of the maximum value (EMAX). (Refer to Fig. 2-40.)
4) Set the shift switch to OFF.

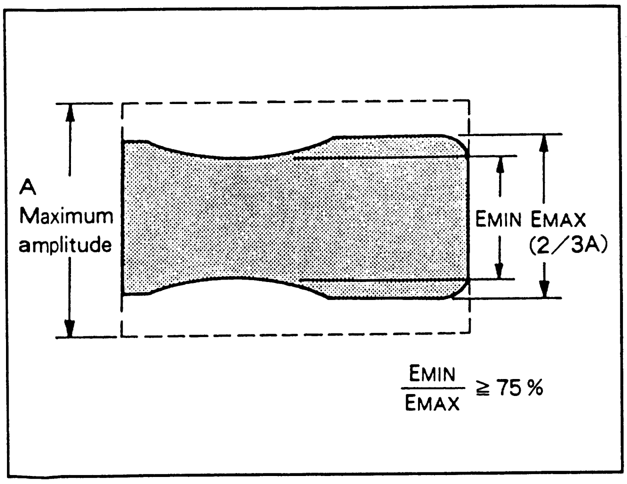

A
Maximum amplitude
EMIN
EMAX (2/3A)
EMIN / EMAX ≧ 75 %

Fig. 2-40.

2-28-5. Checking after Adjustment

1. Tracking check

1) Record TV signals, play back recorded signals, and check that quality of both pictures and sounds is satisfactory.
2) Play back the tracking alignment tape and check that RF waveforms do not have large variations.
3) Set up the CUE and REV mode and check that the waveform noise pitches are uniform. If not, readjust according to 2-28-2. to 2-28-4. (See Fig. 2-41.)

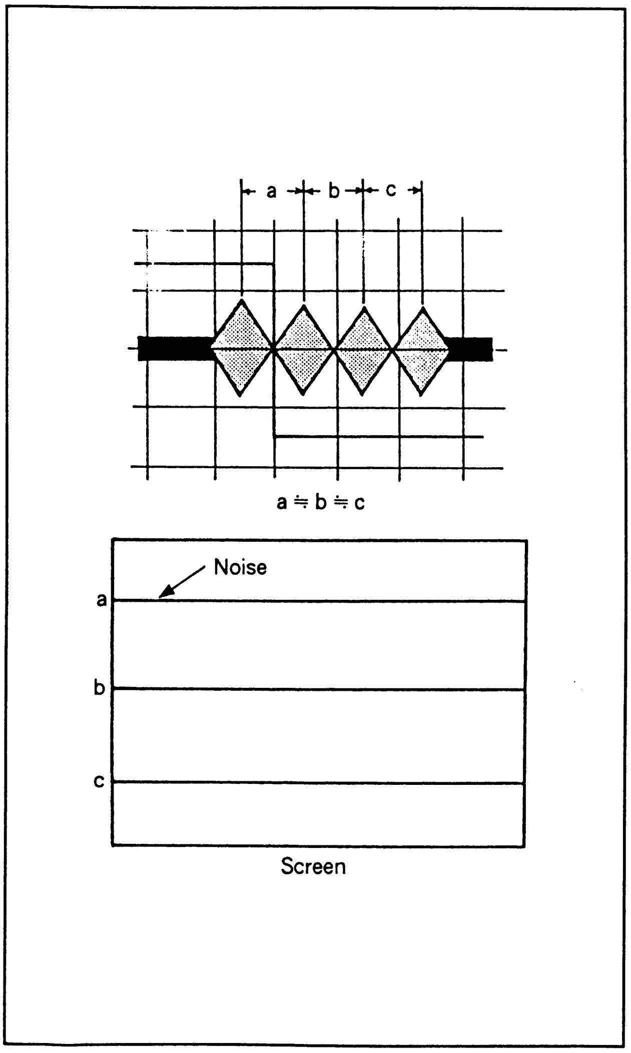

a
b
c
a ≒ b ≒ c
Noise
a
b
c
Screen

Fig. 2-41.

2-29. TAPE RUNNING CHECK

Check that the tape is not raised or curled at each guide flange of TG1 to TG6 (see arrows in Fig. 2-42.) in PLAYBACK, CUE and REV modes.

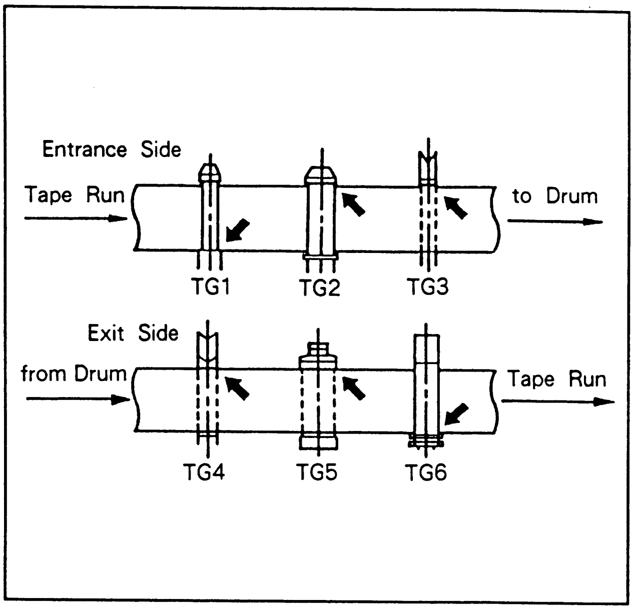

Entrance Side
Tape Run
to Drum
TG1
TG2
TG3
Exit Side
from Drum
Tape Run
TG4
TG5
TG6

Fig. 2-42.

2-30. PERIODIC CHECKING AND MAINTENANCE

Perform the following maintenance and periodical check procedures to allow the unit to perform at its fullest and to extend tape and unit life as well. Also, always carry them out after repairing, regardless of the length of time the unit has been used.

2-30-1. Cylinder Cleaning

While lightly pressing a piece of chamois leather moistened with cleaning fluid against the cylinder, slowly turn the upper cylinder counterclockwise with your fingers.

Cleaning fluid :	Part code Y-2031-001-0
Chamois leather :	Part code 2-034-697-00

Note : Do not use the motor to turn the cylinder, and do not rotate it clockwise. Also, absolutely avoid moving the chamois leather vertically with regard to the head tip, since there is a great danger of damaging the head.

2-30-2. Tape Transport System Cleaning

Set the EJECT mode and clean the tape transport system (TG1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, pinch roller, capstan axle) with a piece of chamois leather moistened with cleaning fluid.

Note : Prevent linking parts oil and grease from getting on the chamois leather.

2-30-3. Driving System Cleaning

Clean the driving system (surface of reel tables) with a piece of chamois leather moistened with cleaning fluid.

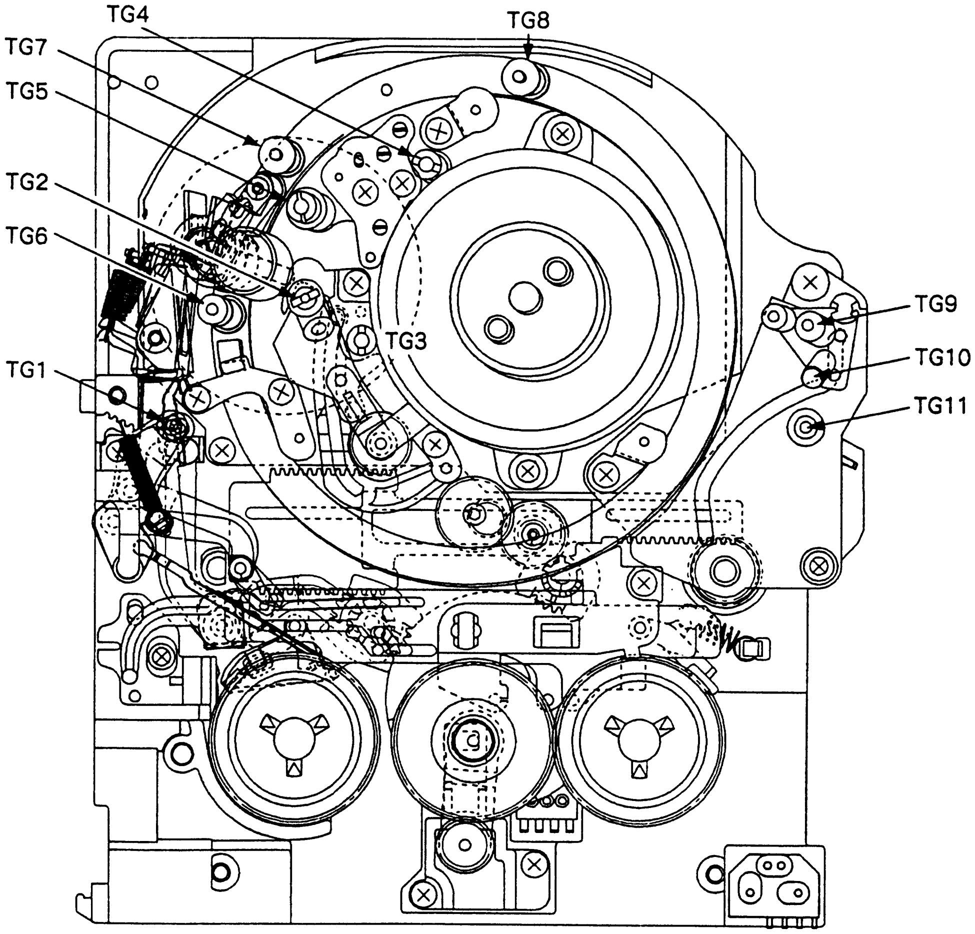


Fig. 2-43.

2-30-4. Periodic Check Items

Maintenance and Check Part		Hours in Operation (H)										Remarks
		500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000	
	Cleaning of tape running surfaces	○	○	○	○	○	○	○	○	○	○	Avoid oil
	Cleaning and demagnetizing of cylinder assembly	○	○	○	○	○	○	○	○	○	○	Avoid oil
Drive system	Capstan axle	–	◎	–	◎	–	◎	–	◎	–	◎	Absolutely avoid oil on tape running surfaces
	Loading motor	–	☆	–	☆	–	☆	–	☆	–	☆	
Performance checkign	Abnormal sound	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	
	Back tension measurement	–	☆	–	☆	–	☆	–	☆	–	☆	
	Brake system	–	☆	–	☆	–	☆	–	☆	–	☆	
	FWD, RVS torque measurement	–	☆	–	☆	–	☆	–	☆	–	☆	

○ Cleaning ◎ Lubrication ☆ Confirmation

Notes :

1) Replace parts during overhaul taking above items into consideration.
2) Oil
   - Always use the specified oil. Using oil of the wrong viscosity, etc. may cause troubles of several kinds.
     Specified oil : Mitsubishi Diamond Oil Hydro-fluid R-32 (commercially available)
   - Be sure to use oil completely free from dust, etc., mixed in it when oiling the bearings. (The bearings may wear and may seize up if oil mixed with dust, etc., is used.)
   - One drop of oil is approximately the amount of oil on the tip of a stick 2 mm in diameter as shown in the diagram. (Refer to Fig. 2-44.)

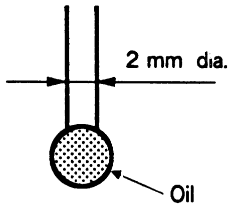


Fig. 2-44.

3. VIDEO SECTION ADJUSTMENT

[Equipment Used]

1) Monitor TV
2) Dual trace oscilloscope, bandwidth of at least 10 MHz, equipped with delay mode (10 : 1 probe used unless specified otherwise)
3) Frequency counter
4) Pattern generator with video output jack
   Note : Use pattern generator which allows chroma signal to be switched off.
5) Regulated power supply
6) Alignment tape (jig)
7) MP tape
8) Vectorscope (TEKTRONIX. INC : No.521A)
9) Jigs
10) AV output cord (VCW-82) : Available as an optional for the 8-mm camcorder.
   Note : This cord is attached to the unit for the Sanyo model for the Spanish market, the Siemens model, and the Pentax model for the French market.

[Alignment Tapes]

Video Frequency Characteristics (WR5-2C) Part code : 8-967-995-16 or (WR5-6C) Part code : 8-967-995-17
Operation Checking (WR5-5CSP) Part code : 8-967-995-47

Ref. No.	Parts Cord	Parts Name
J-1	VJ8-0071	Relay FPC
J-2	VJ8-0072	Relay FPC
J-3	VJ8-0073	Relay FPC
J-4	VJ8-0074	Relay FPC
J-5	VJ8-0075	Relay FPC
J-6	VJ8-0076	Relay cord
J-7	VJ8-0079	Video signal input jig

Tape	Contents	Use
Video Frequency Characteristics (WR5-2C)	1. Recording area : Video 2. Recording contents : RF sweep 0 to 10 MHz 3. Marker : 1, 3.58, 5.5, and 7 MHz	Frequency characteristics adjustment
Operation Checking (WR5-5CSP)	1. Recording area : PCM to video 2. Recording contents : Color bars, monoscope (SP) Audio signals (FM), PCM audio signals	Operation checking

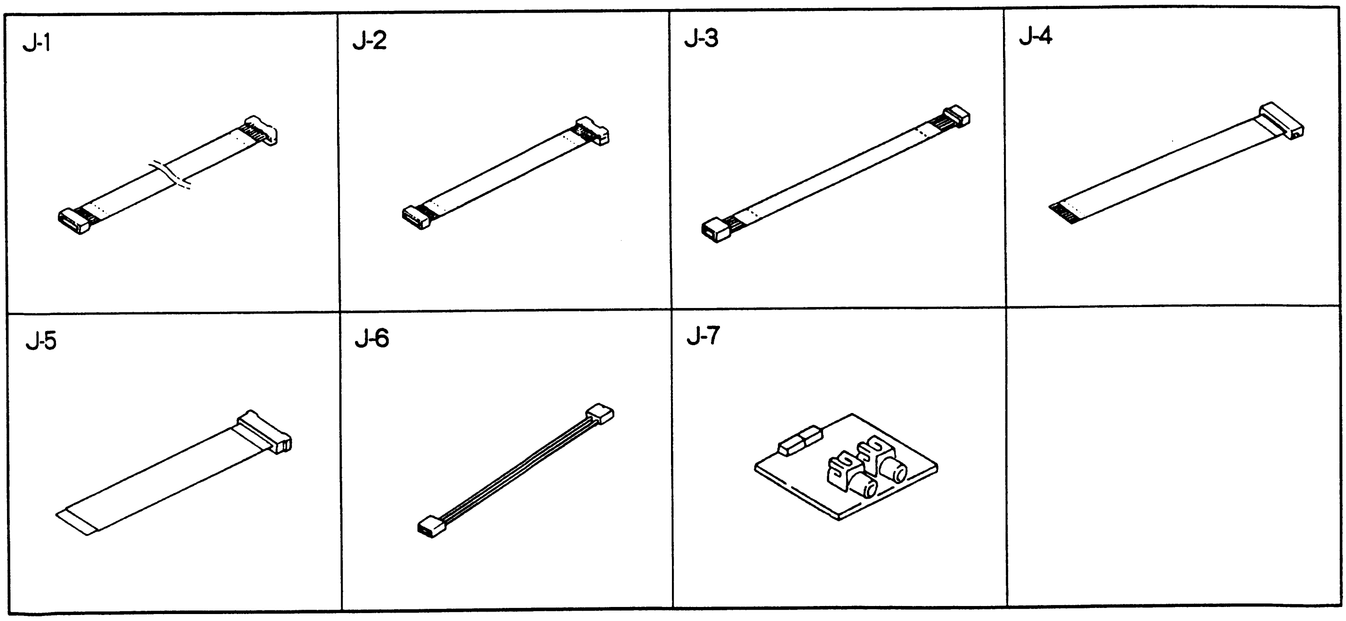


Fig. 3-1. Jig

[Connection for adjustment]

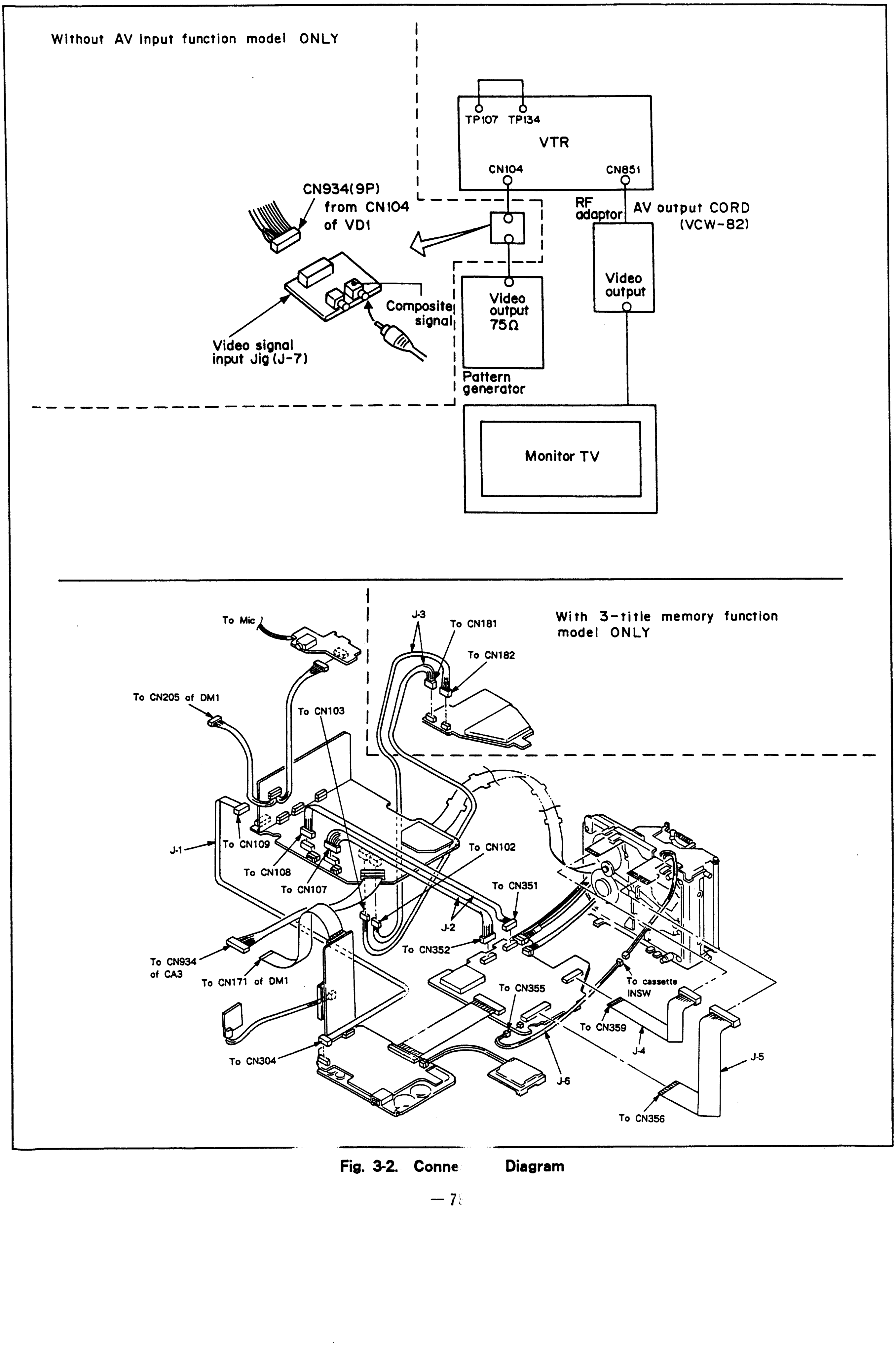

Without AV input function model ONLY
TP107
TP134
VTR
CN104
CN851
CN934(9P)
from CN104
of VD1
RF
adaptor
AV output CORD
(VCW-82)
Video
output
Composite
signal
Video
output
75Ω
Video signal
input Jig (J-7)
Pattern
generator
Monitor TV
To Mic
J-3
To CN181
To CN182
With 3-title memory function
model ONLY
To CN205 of DM1
To CN103
J-1
To CN109
To CN108
To CN107
To CN102
To CN351
J-2
To CN352
To CN934
of CA3
To CN171 of DM1
To CN355
To cassette
INSW
To CN359
J-4
J-5
To CN304
J-6
To CN356

Fig. 3-2. Conne Diagram

[Set up for Adjustment]

As the video signal obtained from the pattern generator is used as the adjustment signal for adjustment of the VTR section, it is necessary that this video output signal be within the specified range.

Connect the oscilloscope to CN104 Pin ⑤ (CN934 ⑤/VIDEO IN) on the VD1 board, and confirm that the amplitude of the sync signal of the video signal is approximately 0.3 V, the amplitude of the video section is approximately 0.7 V, and the amplitude of the burst signal is approximately 0.3 V and flat. Also confirm that the ratio of the levels of the burst signal and "red" signals is 0.30 : 0.66.

The video signal (color bar) used for adjustment of the VTR section is shown in Fig. 3-3.

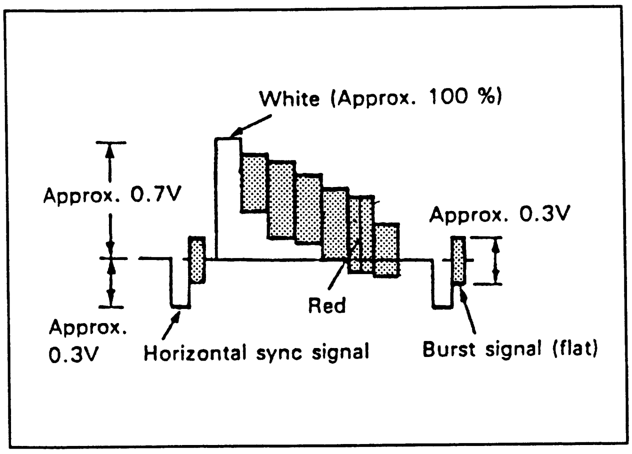


Fig. 3-3. Color Bar Signal of Pattern Generator

3-1. SYSTEM CONTROL SYSTEM ADJUSTMENT

3-1-1. Lithium Battery Power-down Detection Voltage Adjustment (SY1 Board)

Digital voltmeter : TP304 (SY1)
TP302 (GND/SY1)

Adjusting method :

Adjust to 2.645 ± 0.005V with VR301 (SY1).

3-1-2. H.SYNC Oscillation Frequency Adjustment (SV1 Board)

Mode : Line E-E, with no signal fed into the line input.

Frequency counter : TP321 (SV1)
TP302 (GND/SY1)

Adjusting method :

Adjust to 15.7 ± 0.1 kHz with VR321 (SV1). (NTSC)
Adjust to 15.6 ± 0.1kHz with VR321 (SV1). (PAL)

3-1-3. Screen Characters Position Adjustment (SV1 Board)

Mode : E-E (CAMERA)

Short-circuited terminals : TP302, TP303

Adjusting method :

Short-circuit TP302 and TP303, and the battery-down adjustment arrows (↑ ↑ : ↓ ↓ : * *) will be displayed on the lower part of the screen. Adjust CT321 (SV1) so as to center the arrows in the horizontal direction.

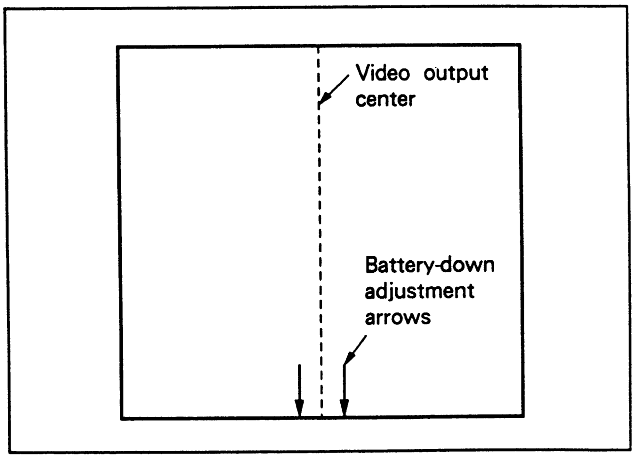


Fig. 3-4. Screen Characters Position Adjustment

3-1-4. Clock Crystal Oscillator Frequency Adjustment (SY1 Board)

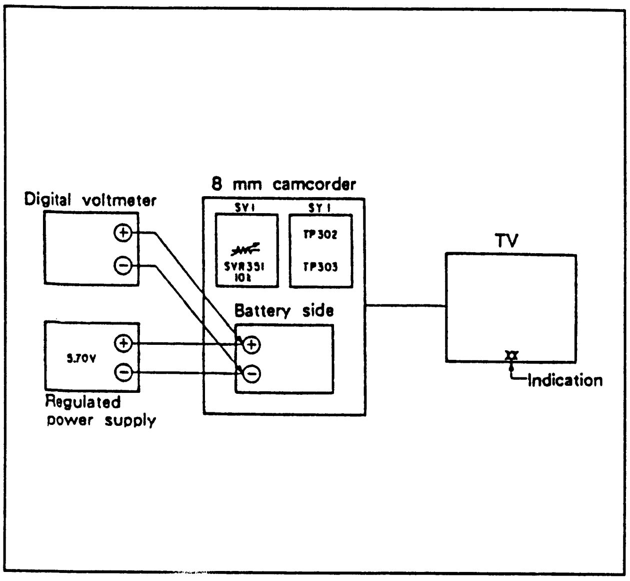
Frequency counter : TP301 (SY1) (use a device allowing for sync - period measurement. 6 digits or more are required for time base 10^3).
TP302 (GND/SN1)

Adjusting method :

1) Short-circuit TP302 and TP303 on the SY1 board.
2) Adjust to 488.281 ± 0.002 μs with CT301 (SY1).

3-1-5. Battery-down Adjustment (SY1 Board)

Perform this adjustment with no cassette inserted in the cassette holder. You will need a regulated power supply, a digital voltmeter and shorting clips.



8 mm camcorder
Digital voltmeter
SV1
SY1
TP302
TP303
SVR351
10k
TV
Battery side
5.70V
Regulated power supply
Indication

Fig. 3-5. Battery-down Adjustment (SY1 Board)

Adjusting method :

1) Connect the regulated power supply and the digital voltmeter as shown in Fig. 3-5, then short-circuit TP302 and TP303 (set the regulated power supply to 5.60 ± 0.05V.)
[In case of high band model, it becomes 5.70 ± 0.05V.]
2) Press the 8 mm video power switch to turn it on.
3) Turn the trimmer VR351 on the SV1 board so that the ＊＊ indication is displayed on the TV screen. (turn it counterclockwise when ↓ ↓ is displayed, and clockwise when ↑ ↑ is displayed).
4) Remove the shorting clips.

Note : Perform this adjustment with the camera block connected.

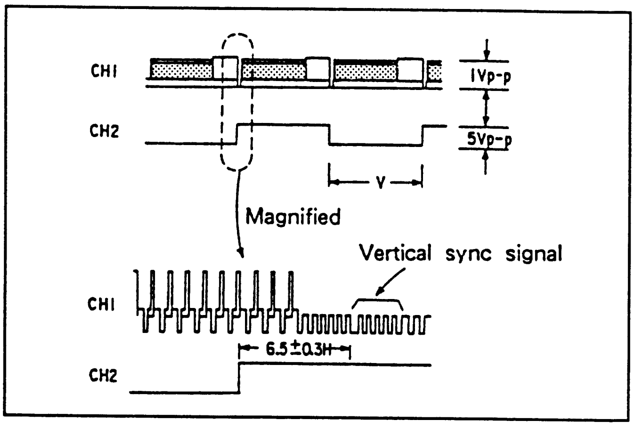
3-2. SERVO SYSTEM ADJUSTMENT

3-2-1. Switching Position Adjustment (VD1 Board)

Mode : Playback
Set to the TEST mode.
(Short circuit between TP302 and TP303 on the SY1 board.)
Alignment tape : For operation check (WR5-5CSP)
Oscilloscope CH1 : TP105 on the VD1 board (LINE OUT)
CH2 : Pin ② of CN105 on the VD1 board (RF SW)
GND : Pin ① of CN105 on the VD1 board

Adjusting method :

Adjust the interval between CH2 rising and CH1 vertical sync signal to 6.5 ± 0.3H (410 ± 20 μs) with VR352 on the SY1 board.

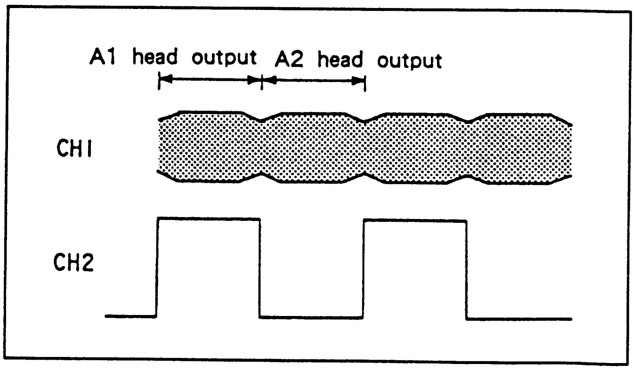


CH1
CH2
1Vp-p
5Vp-p
V
Magnified
Vertical sync signal
CH1
CH2
6.5±0.3H

Fig. 3-6. Switching Position Adjustment

3-2-2. Slow-tracking Adjustment (SV1 and VD1 Boards) [with slow playback function model only]

Mode : Slow playback
Tape : Self-recorded tape
Oscilloscope CH1 : Pin ⑤ of CN105 on the VD1 board (PR RF)
CH2 : Pin ② of CN105 on the VD1 board (RF SW)
GND : Pin ① of CN105 on the VD1 board



A1 head output
A2 head output
CH1
CH2

Fig. 3-7. Slow-tracking Adjustment

3-2-3. Still Picture Vertical Fluctuation Adjustment (VD1 Board)

Mode: Still-picture playback
Tape: Self-recorded tape

Adjusting method :

While observing the monitor screen, adjust SVR302 on the SY1 board so as to minimize vertical fluctuation (double image).

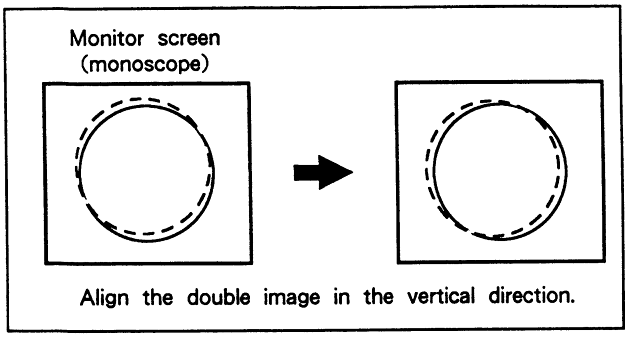


Fig. 3-8. Still Picture Vertical Fluctuation Adjustment

3-2-4. Still Noise Bar Adjustment (SV1 Board)

(Without the SLOW playback function model only.)

Tape: Self-recorded tape

Adjusting method :

Playback the self-recorded tape, press STILL button and adjust VR354 so that no noise bars appear on the screen.

3-3. VIDEO SYSTEM ADJUSTMENT

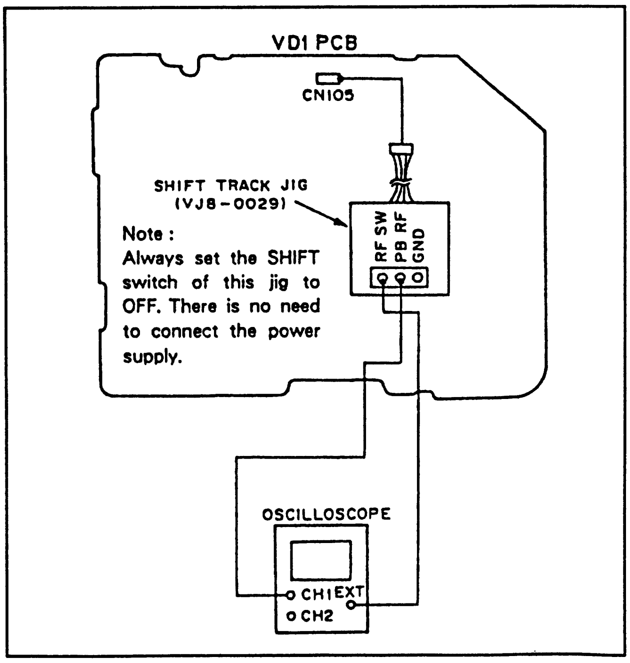
As a rule, the video system should be adjusted following the adjustment procedure below. The color video signal supplied by the pattern generator is used as video input signal for video system adjustment in recording mode. Confirm that the sync and color burst signals meet the standards specified for adjustment setup in Fig. 3-3.

[Adjustment Procedure]

1) Playback Frequency Characteristics Check
2) Flying Erase Check
3) SYNC AGC Adjustment
4) Y/C Separation Adjustment
5) BF Position Adjustment
6) PB Y Level Adjustment
7) PB LINE OUT Level Adjustment
8) Y FM Carrier Frequency Adjustment
9) Y FM Deviation Adjustment
10) REC Y Recording Current Check
11) REC C Recording Current Adjustment
12) REC AFM Recording Current Check
13) REC ATF Recording Current Adjustment
14) EX Burst Phase Adjustment
15) DL Signal Phase Adjustment
16) Title Position Adjustment
17) White Balance Adjustment
18) R-Y Modulation Axis Adjustment
19) AD Threshold Adjustment
20) Title Y Level Adjustment
21) Title Color Phase Adjustment
22) Title Color Phase Adjustment

3-3-1. Playback Frequency Characteristics Check

[Connection]



Note :
Always set the SHIFT switch of this jig to OFF. There is no need to connect the power supply.

Fig. 3-8.

[Check]

Measuring Point	Measuring Equipment	Ckeck Condition
CN105⑤ CN105② (trigger)	Oscilloscope Alignment tape (WR5-2C)	PB

ADJ. Location	Check Value
	3.58 MHz : 5.5 MHz = 3 : 2

1) Confirm that the ratio between the 3.58 MHz and 5.5 MHz levels is approximately 3 : 2.

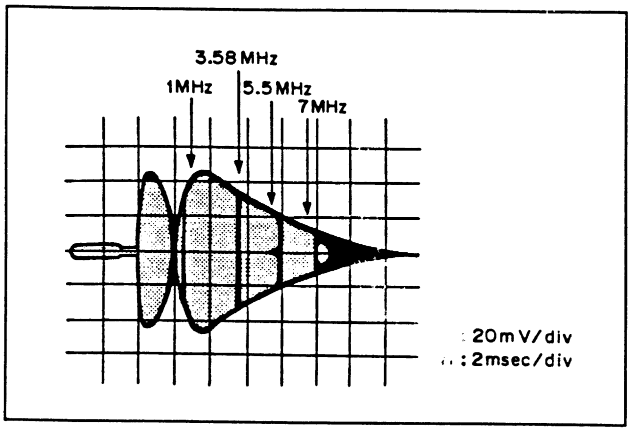


Fig. 3-9.

If NG, either the PCB or mechanism is defective. Replace the PCB assembly if the PCB defective. If the problem lies in the mechanism, adjust and check it again.

3-3-2. Flying Erase Check

[Connection]

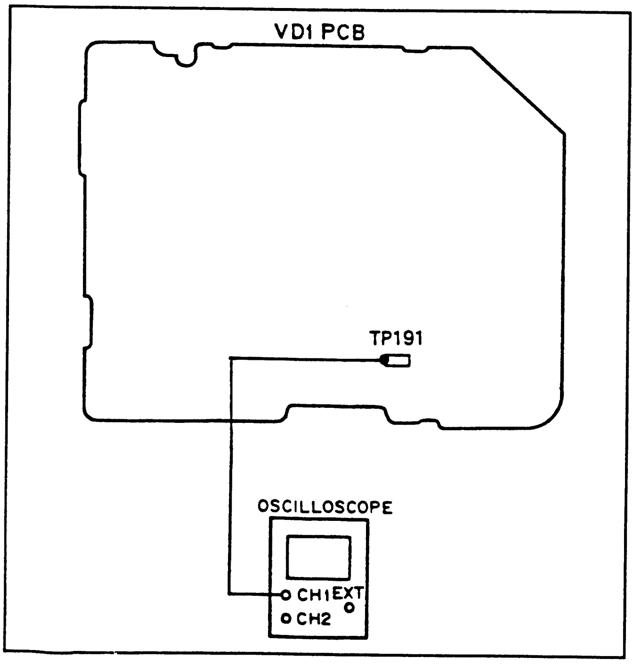


Fig. 3-10.

[Check]

Measuring Point	Measuring Equipment	Ckeck Condition
TP191	Oscilloscope	REC

ADJ. Location	Check Value
	Oscillation frequency : At least 7.5 MHz Oscillation voltage : At least 7.0 Vp-p

1) Confirm that the oscillation frequency is at least 7.5 MHz and the oscillation voltage is at least 7.0 Vp-p.

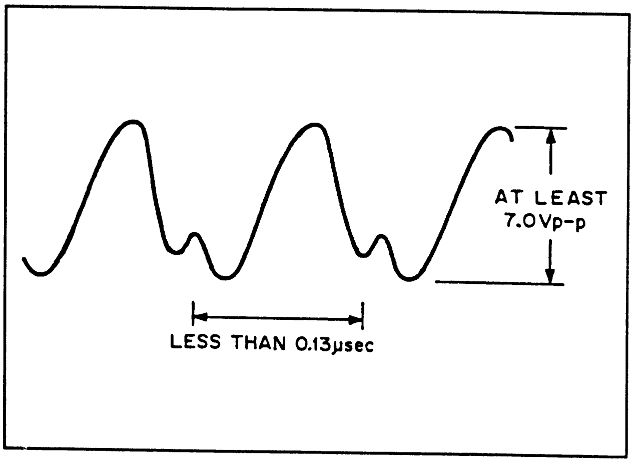


Fig. 3-11.

If NG, either the PCB or cylinder is defective. Replace the PCB assembly if the PCB is defective. If the problem lies in the cylinder, clean the head. If there is still a problem, adjust the mechanism after replacement of the cylinder, and check again.

3-3-3. Sync AGC Adjustment

[Connection]

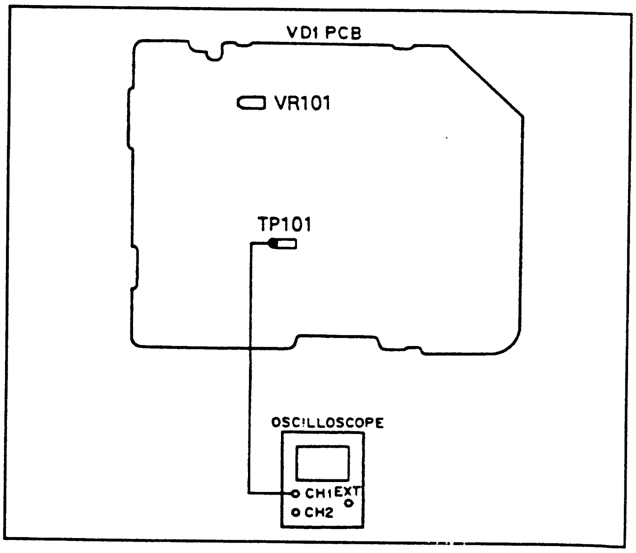


Fig. 3-12.

[Adjustment]

Measuring Point	Measuring Equipment	ADJ. Condition
TP101	Oscilloscope	EE
ADJ. Location	**ADJ. Value**	
VR101	0.5 Vp-p ± 0.01 Vp-p	

1) Adjust to 0.5 Vp-p ± 0.01 Vp-p with VR101.

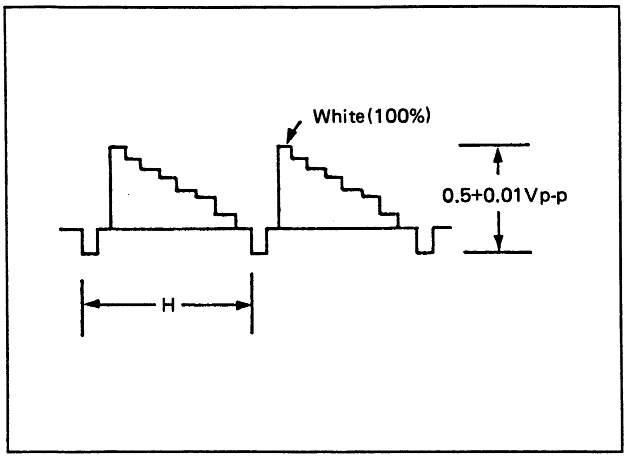

White(100%)
0.5+0.01Vp-p
H

Fig. 3-13.

3-3-4. Y/C Separation Adjustment

[Connection]

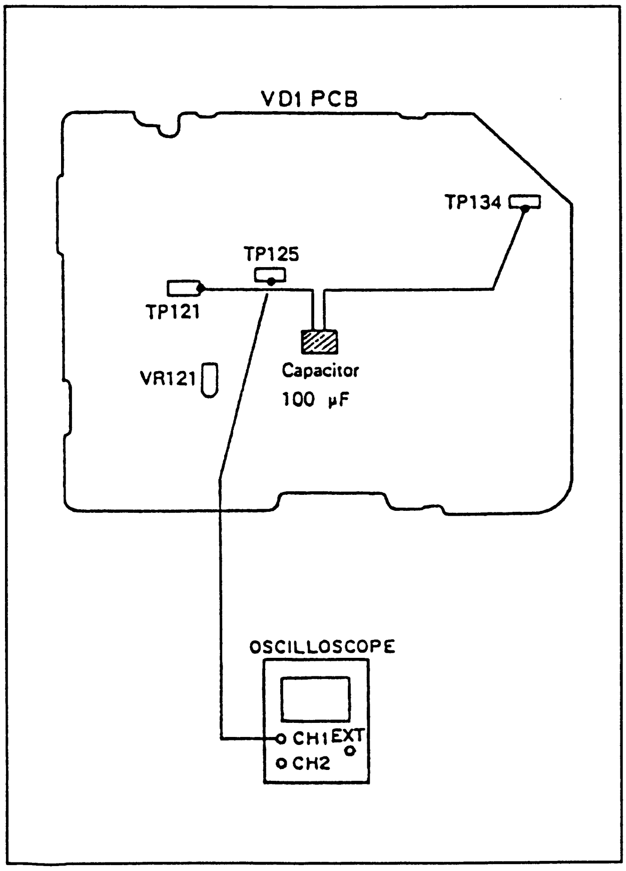

VD1 PCB
TP134
TP125
TP121
VR121
Capacitor
100 μF
OSCILLOSCOPE
CH1
EXT
CH2

Fig. 3-14.

[Adjustment]

Measuring Point	Measuring Equipment	ADJ. Condition
TP125	Oscilloscope	EE
ADJ. Location	**ADJ. Value**	
VR121		

1) Connect TP121 and TP134 on the VD1 PCB using a jumper wire with 100 μF capacitor attached.
2) Adjust VR121 for minimum green amplitude (residual chroma level).
3) Remove the jumper wire after the completion of adjustment.

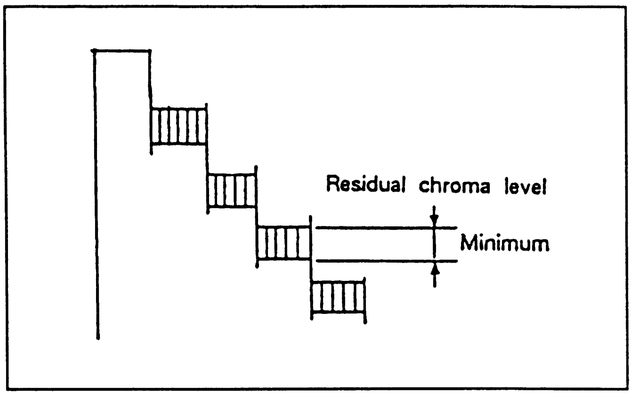

Residual chroma level
Minimum

Fig. 3-15.

3-3-5. BF Position Adjustment

[Connection]

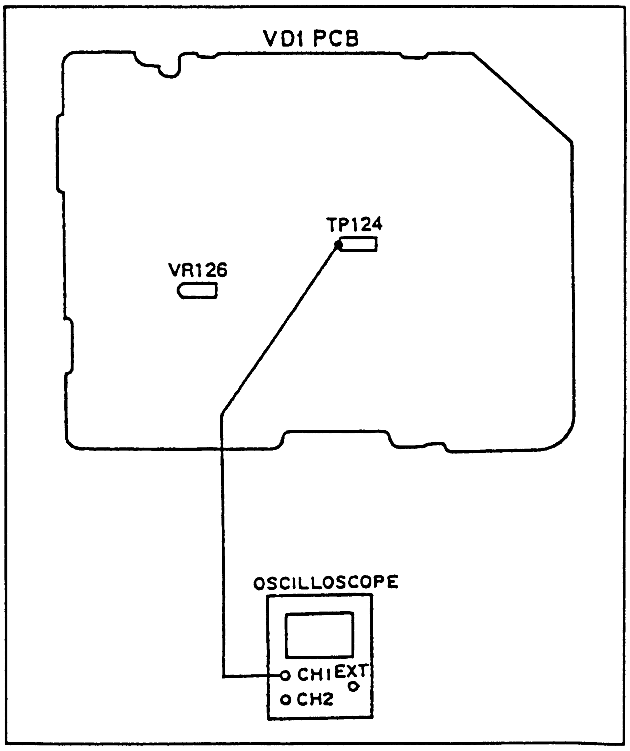

VD1 PCB
TP124
VR126
OSCILLOSCOPE
CH1
EXT
CH2

Fig. 3-16.

[Adjustment]

Measuring Point	Measuring Equipment	ADJ. Condition
TP124	Oscilloscope	EE

ADJ Location	ADJ. Value
VR126	6.8 μs ± 0.2 μs

1) Adjust BF (burst flag) to 6.8 μs ± 0.2 μs with VR126.

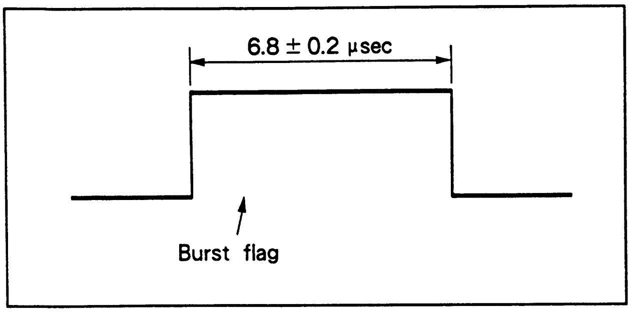

6.8 ± 0.2 μsec
Burst flag

Fig. 3-17.

3-3-6. PB Y Level Adjustment

[Connection]

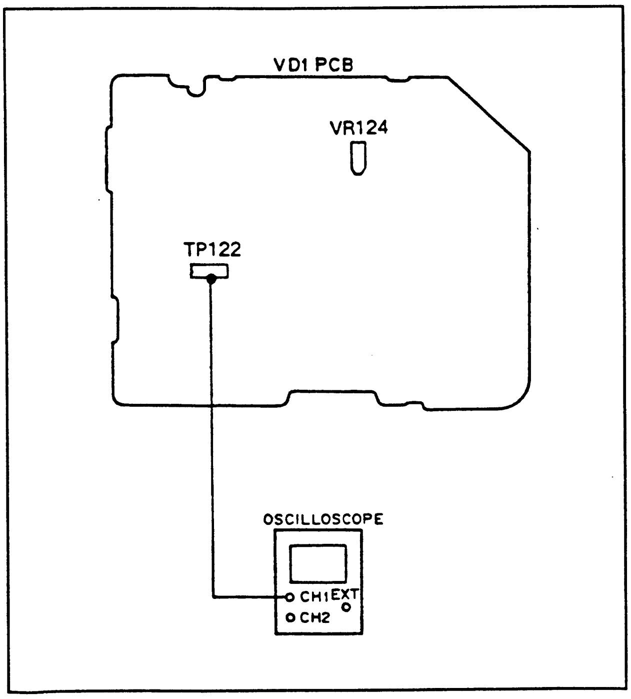

VD1 PCB
VR124
TP122
OSCILLOSCOPE
CH1
EXT
CH2

Fig. 3-18.

[Adjustment]

Measuring Point	Measuring Equipment	ADJ. Condition
TP122	Oscilloscope Alignment tape (WR5-5CSP)	PB

ADJ. Location	ADJ. Value
VR124	0.5 Vp-p ± 0.01 Vp-p

1) Playback the color bar section of the alignment tape.
2) Adjust to 0.5 Vp-p ± 0.01 Vp-p with VR124.

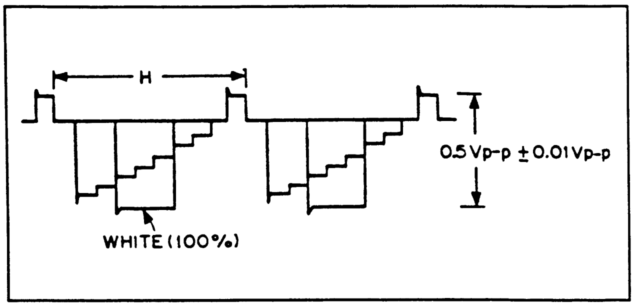

H
0.5 Vp-p ± 0.01 Vp-p
WHITE (100%)

Fig. 3-19.

3-3-7. PB Line Out Level Adjustment

[Connection]

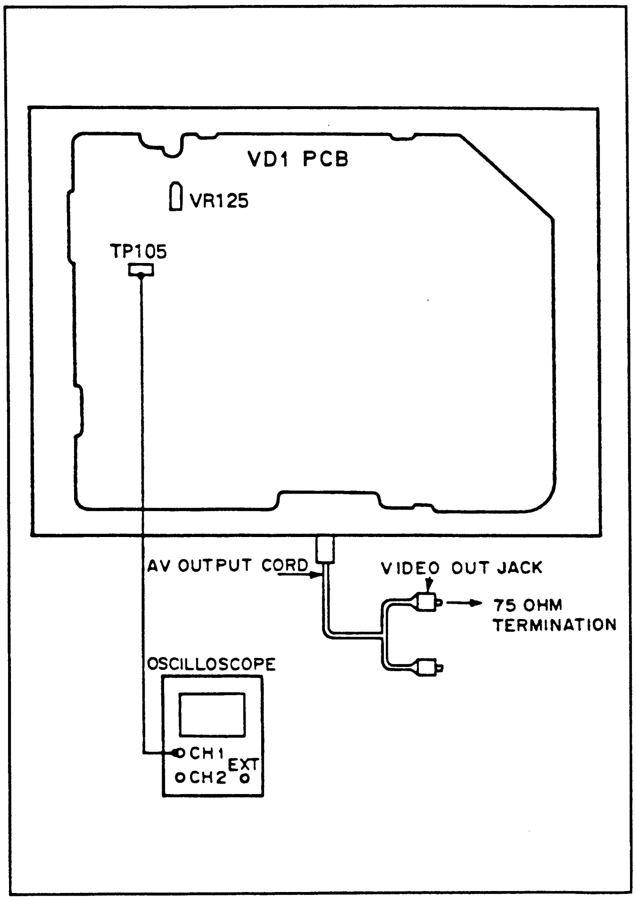

VD1 PCB
VR125
TP105
AV OUTPUT CORD
VIDEO OUT JACK
75 OHM TERMINATION
OSCILLOSCOPE
CH1
EXT
CH2

Fig. 3-20.

[Adjustment]

Measuring Point	Measuring Equipment	ADJ. Condition
TP105	Oscilloscope Alignment tape (WR5-5CSP)	PB

ADJ. Location	ADJ. Value
VR125	1.00 Vp-p ± 0.02 Vp-p

1) Connect the AV OUTPUT cord to terminate the video OUT jack at 75 Ω.
2) Playback the color bar section of the alignment tape.
3) Adjust to 1.00 Vp-p ± 0.02 Vp-p with VR125

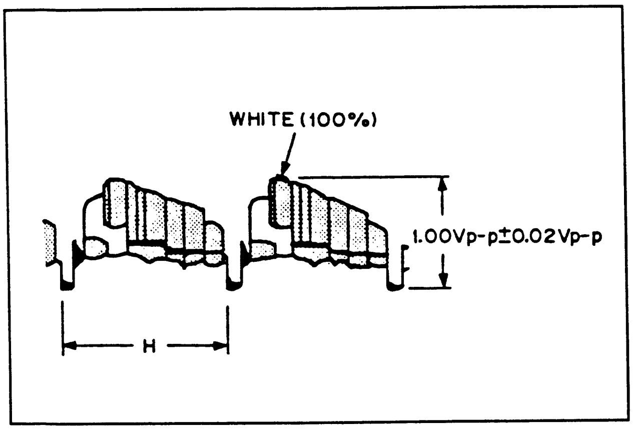

WHITE (100%)
1.00Vp-p±0.02Vp-p
H

Fig. 3-21.

3-3-8. Y FM Carrier Frequency Adjustment

[Connection]

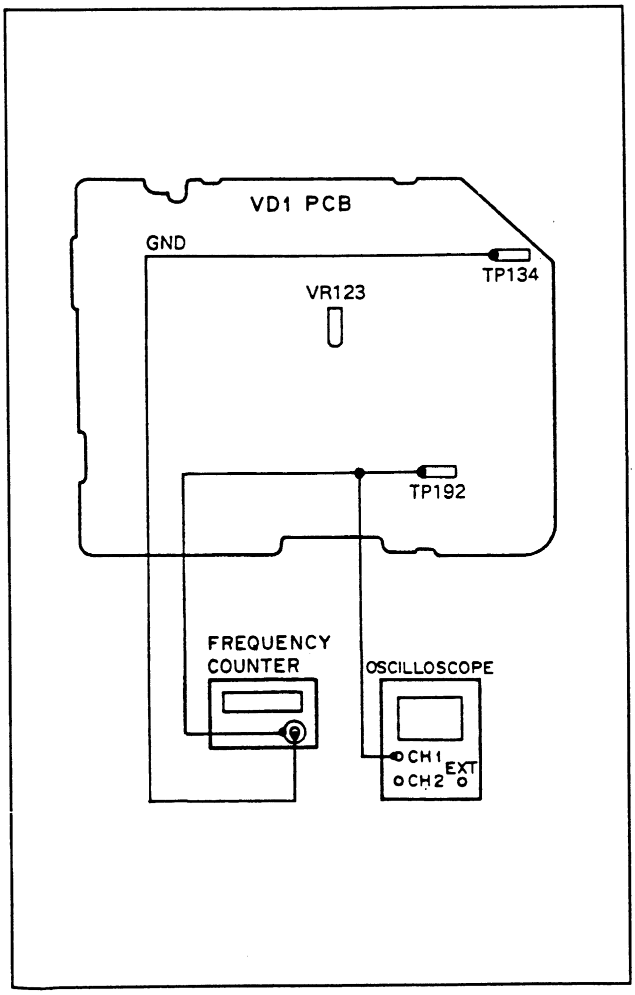

VD1 PCB
GND
TP134
VR123
TP192
FREQUENCY COUNTER
OSCILLOSCOPE
CH1
CH2
EXT

Fig. 3-22.

[Adjustment]

Measuring Point	Measuring Equipment	ADJ. Condition
TP192	Oscilloscope Frequency counter	REC (no input signal)

ADJ. Location	ADJ. Value
VR123	4.39 MHz ± 0.05 MHz

1) Adjust to 4.39 MHz ± 0.05 MHz with VR123.

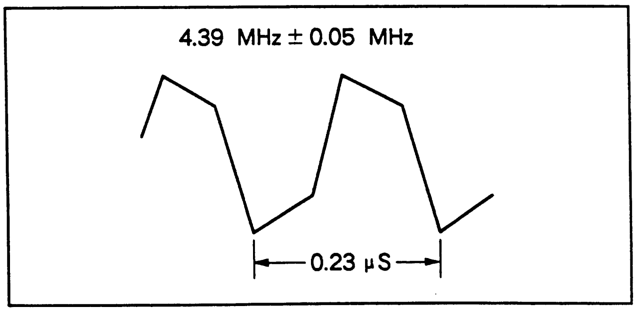

4.39 MHz ± 0.05 MHz
0.23 μS

Fig. 3-23.

3-3-9. Y FM Deviation Adjustment

[Connection]

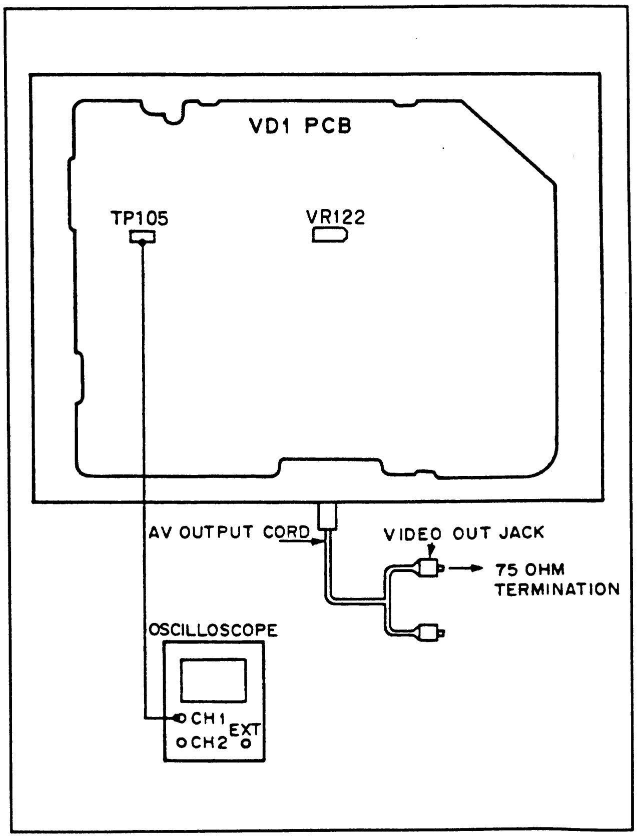

VD1 PCB
TP105
VR122
AV OUTPUT CORD
VIDEO OUT JACK
75 OHM TERMINATION
OSCILLOSCOPE
CH1
CH2
EXT

Fig. 3-24.

[Adjustment]

Measuring Point	Measuring Equipment	ADJ. Condition
TP105	Oscilloscope	REC and PB

ADJ. Location	ADJ. Value
VR122	1.00 Vp-p ± 0.05 Vp-p

1) Record the color bar signal of the pattern generator.
2) Playback the recorded level.
3) Check the playback level.
   The specified value is 1.00 Vp-p ± 0.05 Vp-p.
4) If the specified value is not satisfied, repeat steps 1) through 3) after rotating VR122 in the following manner.

	Rotation Direction of VR122
When higher than specified value	Counterclockwise direction (○)
When lower than specified value	Clockwise direction (○)

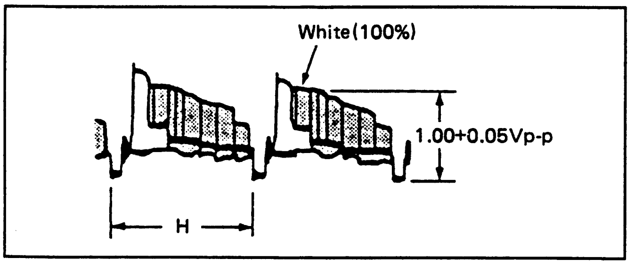

White(100%)
1.00+0.05Vp-p
H

Fig. 3-25.

3-3-10. REC Y Recording Current Adjustment

[Connection]

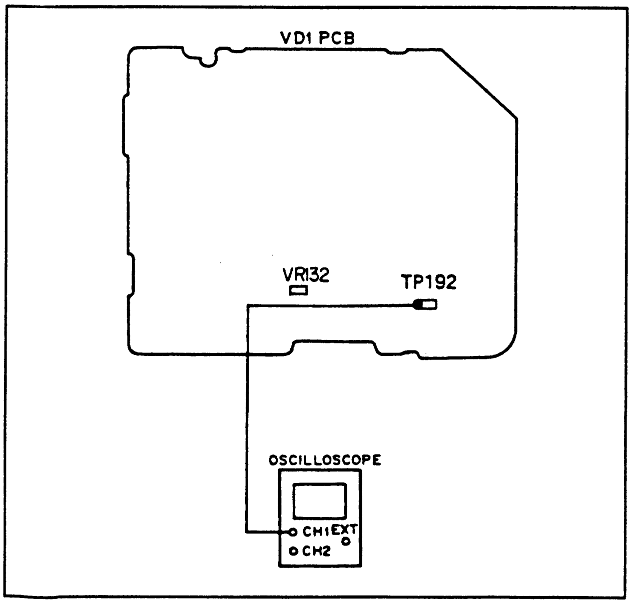

VD1 PCB
VR132
TP192
OSCILLOSCOPE
CH1
EXT
CH2

Fig. 3-26.

[Check]

Measuring Point	Measuring Equipment	Ckeck Condition
TP192	Oscilloscope	REC (no input signal)

ADJ. Location	ADJ. Value
VR132	210 mVp-p

1) Adjust the oscillation voltage to 210 mVp-p with VR132.

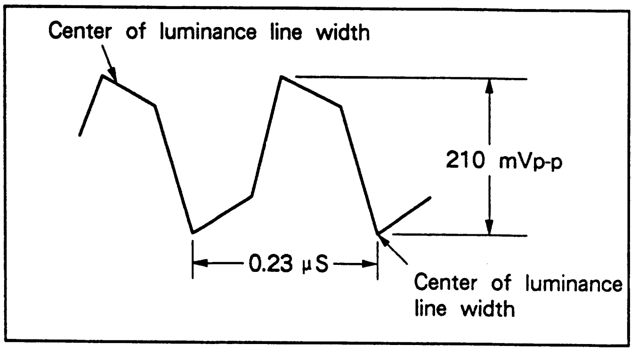

Center of luminance line width
210 mVp-p
0.23 μS
Center of luminance line width

Fig. 3-27.

Note :
In case of without the VR132 on the VD1 PCB, this adjustment unnecessary.

3-3-11. REC C Recording Current Adjustment

[Connection]

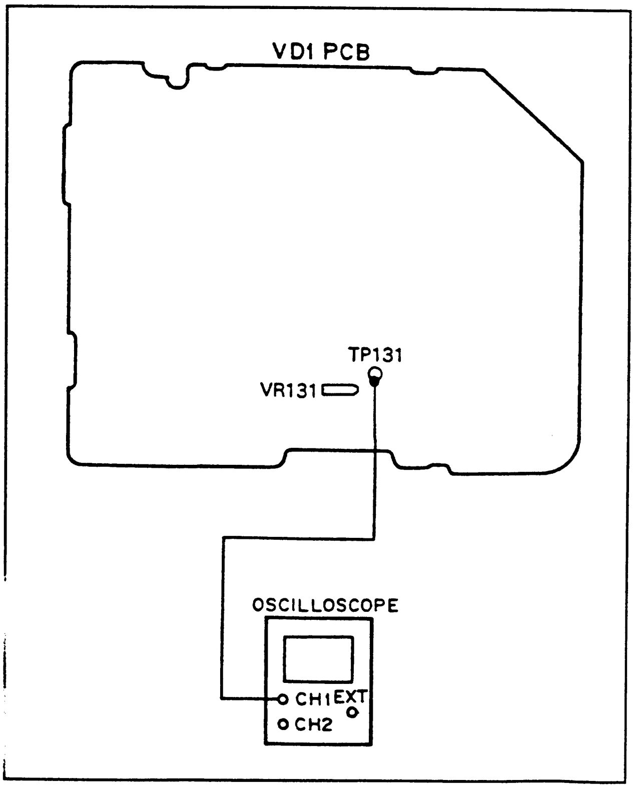

VD1 PCB
TP131
VR131
OSCILLOSCOPE
CH1
EXT
CH2

Fig. 3-28.

[Adjustment]

Measuring Point	Measuring Equipment	ADJ. Condition
TP131	Oscilloscope	REC

ADJ. Location	ADJ. Value
VR131	120 mVp-p

1) Adjust the burst level to 121 mVp-p with VR131.

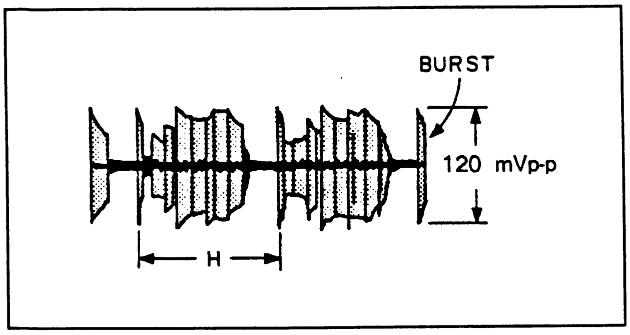

BURST
120 mVp-p
H

Fig. 3-29.

3-3-12. REC AFM Recording Current Check

[Connection]

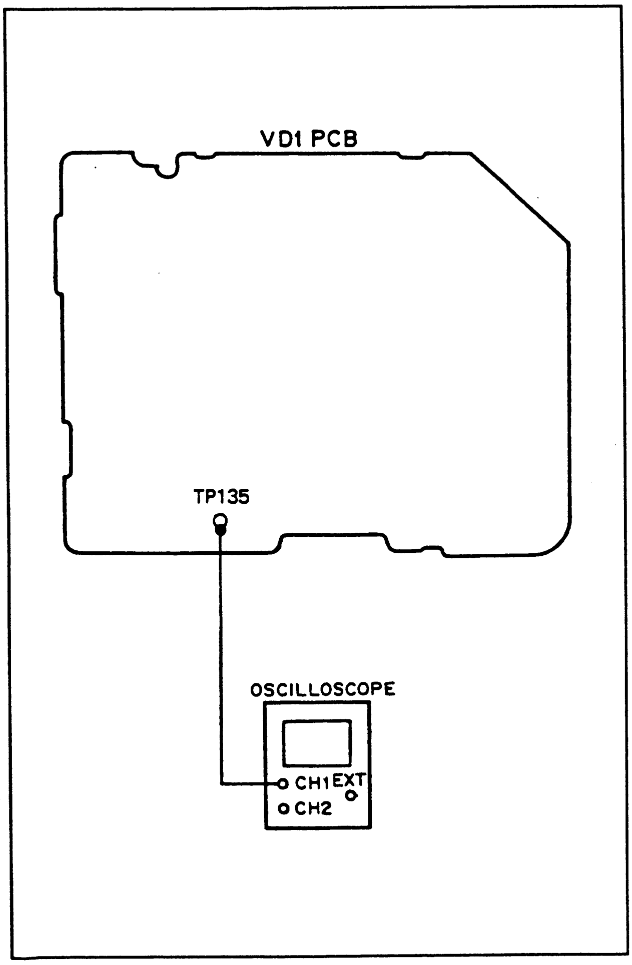

VD1 PCB
TP135
OSCILLOSCOPE
CH1
EXT
CH2

Fig. 3-30.

[Check]

Measuring Point	Measuring Equipment	Ckeck Condition
TP135	Oscilloscope	REC (no audio input)

ADJ. Location	Check Value
	30 mVp-p to 35 mVp-p

1) Confirm that the oscillation voltage is 30 mVp-p to 35 mVp-p.

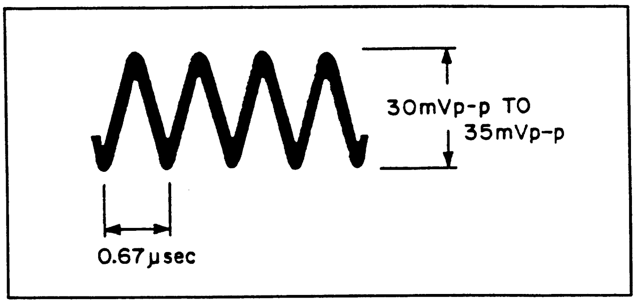

30mVp-p TO
35mVp-p
0.67μsec

Fig. 3-31.

3-3-13. REC ATF Recording Current Adjustment

[Connection]

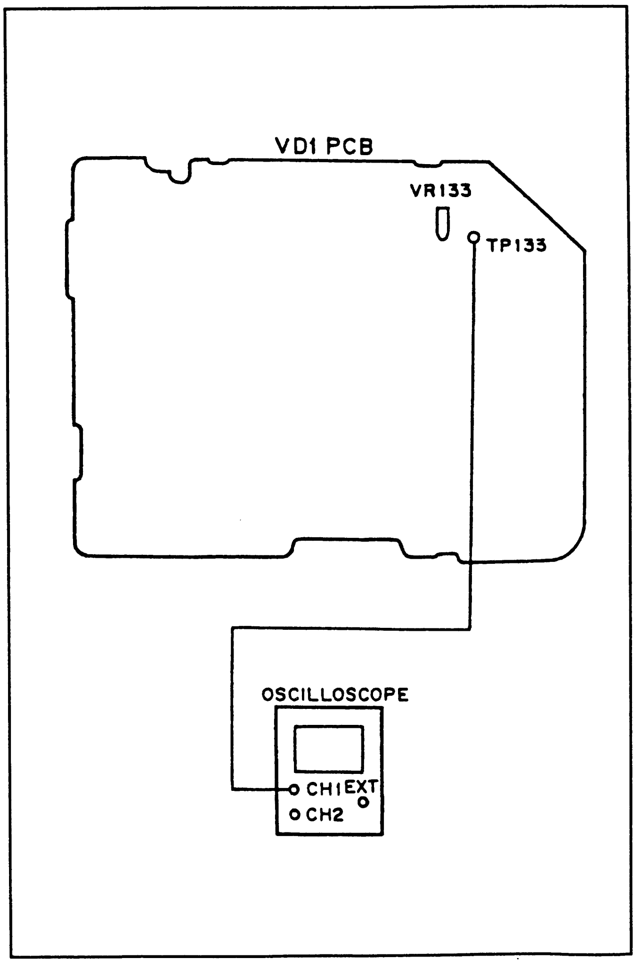

VD1 PCB
VR133
TP133
OSCILLOSCOPE
CH1
EXT
CH2

Fig. 3-32.

[Adjustment]

Measuring Point	Measuring Equipment	ADJ. Condition
TP133	Oscilloscope	REC (SP mode)

ADJ. Location	ADJ. Value
VR133	280 mVp-p

1) Adjust to 280 mVp-p with VR133.

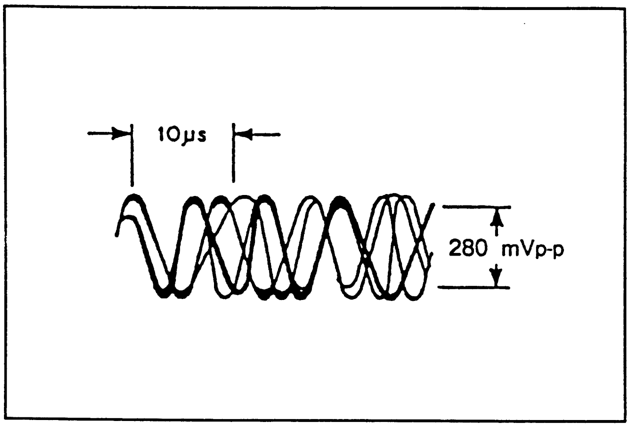


Fig. 3-33.

3-3-14. EX Burst Phase Adjustment

[Connection]

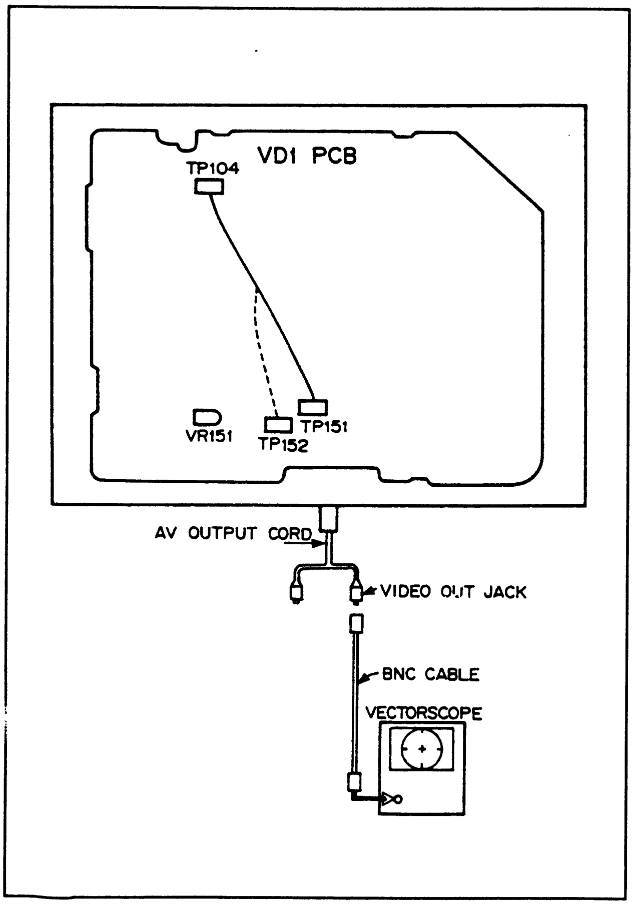

VD1 PCB
TP104
VR151
TP151
TP152
AV OUTPUT CORD
VIDEO OUT JACK
BNC CABLE
VECTORSCOPE

Fig. 3-34.

[Adjustment]

Measuring Point	Measuring Equipment	ADJ. Condition
VIDEO OUT (TP105)	Vectorscope	PB (color bar) (REC and PB)

ADJ. Location	ADJ. Value
VR151	EX Burst Phase = TH Burst Phase

1) Playback the tape. (color bar recorded)
2) Connect the jumper wire TP151 and TP104.
3) Adjust so that the color bar Y_L point to normal point with the vectorscope's PHASE and GAIN volume.
4) Connect the jumper wire TP151, TP104 and TP152.
5) Adjust so that the color bar Y_L point to normal point with the VR151.

3-3-15. DL Signal Phase Adjustment

[Connection]

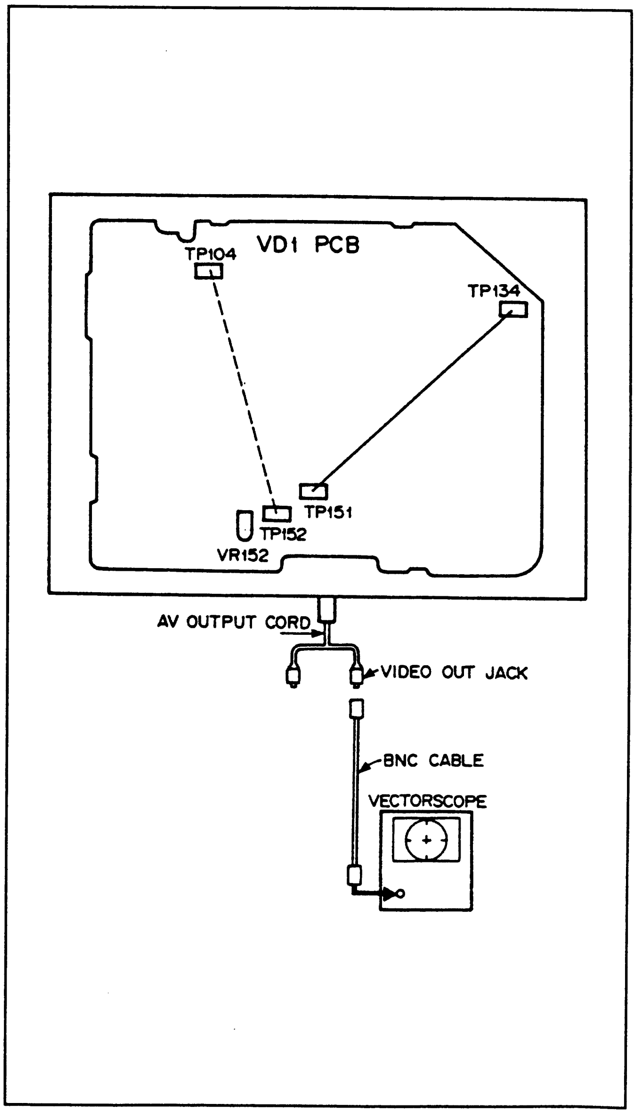

VD1 PCB
TP104
TP134
TP151
TP152
VR152
AV OUTPUT CORD
VIDEO OUT JACK
BNC CABLE
VECTORSCOPE

Fig. 3-35.

[Adjustment]

Measuring Point	Measuring Equipment	ADJ. Condition
VIDEO OUT	Vectorscope	PB (color bar) (REC and PB)

ADJ. Location	ADJ. Value
VR152	DL Burst Phase = EX Burst Phase

1) Playback the tape. (color bar recorded)
2) Connect the jumper wire TP151 and TP134.
3) Adjust so that the color bar YL point to normal point with vectorscope's PHASE and GAIN volume.
4) Connect the jumper wire TP152 and TP104.
5) Adjust so that the color bar YL point to normal point with the VR152.

3-3-16. Title Position Adjustment (DM2 Board)

Subject : All-black (put the lens cover on)
Measuring instrument : Oscilloscope
Measurement points : TP171 ERROR
Adjustment point : VC171 POSITION

Adjusting method :

1) Press the title memory button and store a all-white picture.
2) Adjust VC171 so that DC voltage at TP171 becomes 2.5 ± 0.1V.

3-3-17. White Balance Adjustment (DM2 Board)

Subject : All-black (put the lens cover on)
Measuring instrument : Vectorscope
(set gain to maximum)
Measurement point : Video output terminal
Adjustment points : VR181 CB0
VR182 CB90

Adjusting method :

1) Press the title memory button and store a all-white picture.
2) Adjust VR181 and VR182 so as to minimize the distance between the white vector center and the origin.

3-3-18. R - Y Modulation Axis Adjustment

Subject : All-black (put the lens cover on)
Measuring instrument : Vectorscope
Measurement point : Video output terminal
Adjustment points : VR183, VR182, VR181

Adjusting method :

1) Press the title memory button and store a all-white picture.
2) Adjust VR181 (B - Y axis white balance) so that the title vector level becomes a half of the circumference level on the vectorscope.
3) Adjust PHASE control of the vectorscope so that the title vector angle matches with the B - Y axis on the vectorscope.
4) Adjust VR181 so that the title vector matches with the origin (the title vector becomes zero) on the vectorscope.
5) Adjust VR182 (R - Y axis white balance) so that the title vector level becomes a half of the circumference level on the vectorscope.
6) Adjust VR183 (90° PHASE SHIFT) so that the title vector angle matches with the R - Y axis on the vectorscope.
7) Adjust VR182 so that the title vector matches with the origin (the title vector becomes zero) on the vectorscope.

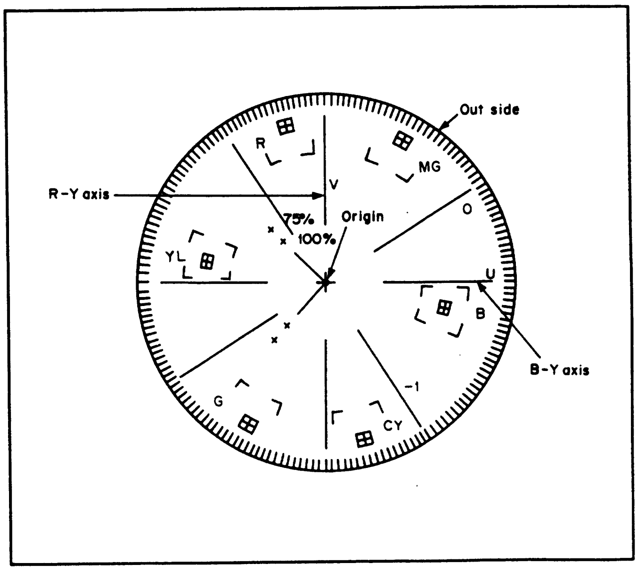


Fig. 3-36.

3-3-19. AD Threshold Adjustment (DM2 Board)

Subject : All-black (put the lens cover on)
Measuring instrument : Digital voltmeter
Measurement points : TP183 (+ probe)
TP184 (− probe)
Adjustment value : 0.26 ± 0.01 Vdc
Adjustment point : VR184 ADTH
Adjusting method :

1) Press the title memory button and store a all-white picture.
2) Press the title color button and superimpose a all-black picture.
3) Adjust voltage to 0.26 ± 0.01 Vdc with VR184.

3-3-20. Title Y Level Check

Subject : All-black (put the lens cover on)
Measuring instrument : Oscilloscope
Measurement point : Video output terminal
Checking method :

1) Press the title memory button and store a all-white picture.
2) Confirm that the oscillation voltage of white title is 630 ± 50 mV from the reference of the pedestal level.
3) Select the black title with title color button.
4) Confirm that the oscillation voltage of black title is 0 ± 30 mV from the reference of the pedestal level.

3-3-21. Title Color Phase Adjustment (REC)

Subject : All-black (put the lens cover on)
Measuring instrument : Vectorscope
Measurement point : Video output terminal
Adjustment value : 104° ± 5°
Adjustment [illegible]nt : VR162
Adjusting m[illegible]d :

1) Press th[illegible] memory button and store a all-white p[illegible]
2) Press t[illegible] color button and superimpose a all-rec[illegible]e.
3) Adjust [illegible] so that the red vector center comes v[illegible] 104° ± 5° of the B − Y axis.

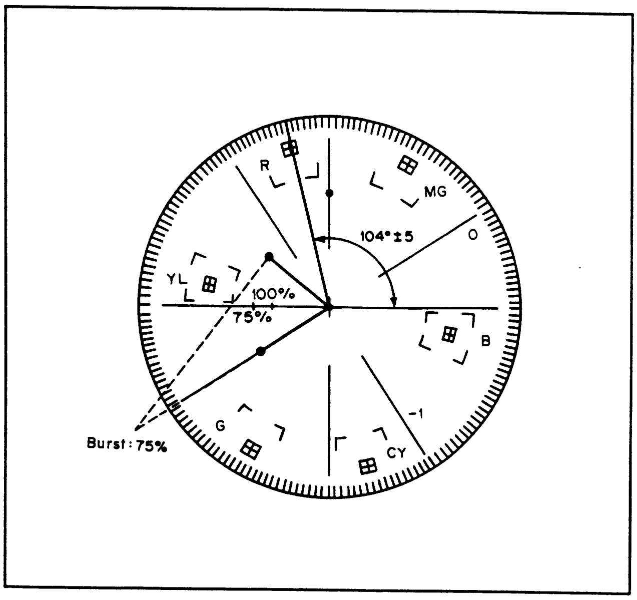


Fig. 3-37.

3-3-22. Title Color Phase Adjustment (PB)

Subject : All-black (put the lens cover on)
Measuring instrument : Vectorscope
Alignment tape (WR5-5CSP)
Measurement point : Video output terminal
Adjustment value : 104° ± 5°
Adjustment point : VR161
Adjusting method :

1) Press the title memory button and store a all-white picture.
2) Press the title color button and superimpose a all-red picture.
3) Playback the alignment tape. (color bar parts)
4) Adjust RV161 so that the red vector center comes within 104° ± 5° of the B-Y axis.

Note :
This adjustment is available when playing back to color bar parts only.

3-4. AUDIO SYSTEM ADJUSTMENT

[Connection of Audio Measuring Devices]
Besides video measuring instruments, connect audio measuring instruments as shown below.

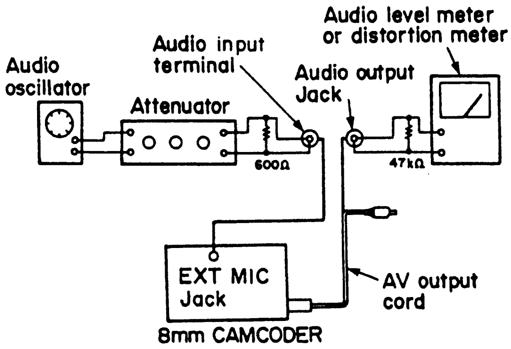


Fig. 3-38.

[Adjustment Procedure]

1) FM Audio Carrier Frequency Check
2) FM Audio Deviation Check
3) E-E Output Level Check
4) Overall Level Check
5) Overall Distortion Check
6) Overall S/N Ratio Check

3-4-1. FM Audio Carrier Frequency Check (VD2 Board)

Mode : Recording
Audio input signal : None
Frequency counter : Pin ⑪ of IC205
Checking method :
Confirm that frequency is 1,500 ± 0.01 MHz.

3-4-2. FM Audio Deviation Check

Mode : Playback
Tape for playback : For operation check (WR5-5CSP)
Checking method :
Confirm that audio output level is − 6 ± 2 dBs.

3-4-3. E-E Output Level Check

Mode : E-E or recording
Audio input signal : 400 Hz, − 68 dBs
Checking method :
Confirm that audio output level is − 6 ± 3 dBs.

3-4-4. Overall Level Characteristics Check

Mode : Self-recording and playback
Tape for playback : MP-type
Audio input signal : 400 Hz, − 68 dBs
Checking method :

1) Record.
2) Playback the recorded section.
3) Confirm that audio output level is − 6 ± 3 dBs.

3-4-5. Overall Distortion Check

Mode : Self-recording and playback
Tape for playback : MP-type
Input audio signal : 400 Hz, − 68 dBs
Checking method :

1) Record.
2) Playback the recorded section.
3) Confirm that the distortion is 1.0% or below.

3-4-6. Overall S/N Ratio Check

Mode : Self-recording and playback
Tape for playback : MP-type
Audio input signal : None (short-circuit the audio input terminals)
Checking method :

1) Record.
2) Playback the recorded section.
3) Confirm that the difference between the playback level measured in 3-4-4 and the level measured in this section is 40 dB or over.

4. EVF SECTION ADJUSTMENT

[Required Equipment]

1. Oscilloscope
2. Frequency counter
3. Alignment tape
   For operation check (WR5-5CSP)
   Part code 8-967-995-47

[Procedure]

Note : Follow the sequence below.

1. Horizontal Oscillation Frequency Adjustment
2. Viewfinder Provisional Adjustment
3. Centering Adjustment
4. Horizontal Size & Viewfinder Slant Adjustment
5. Vertical Size Adjustment
6. Contrast Adjustment
7. Brightness Adjustment
8. Focus Adjustment

4-1. HORIZONTAL OSCILLATION FREQUENCY ADJUSTMENT

Mode : E-E
Input signal : None
Frequency counter : Connect to the checker land shown in Fig. 4-1.

Adjusting method :

Adjust to 16000 ± 50 Hz with VR1.

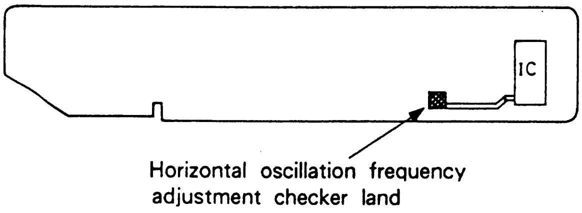


Fig. 4-1.

4-2. VIEWFINDER PROVISIONAL ADJUSTMENT

Mode : Playback
Alignment tape : Monoscope section of the operation check tape (WR5-5CSP)

Adjusting method :

1) Turn VR5 (BRIGHT) to obtain adequate brightness.
2) Turn VR2 (V SIZE) to adjust picture size.
3) Adjust VR3 (CONTRAST), VR5 (BRIGHT) and VR4 (FOCUS) so that a proper picture display is obtained.
4) Move the DY in the direction of arrow A (as shown in Fig. 4-2.) to eliminate the gap B.

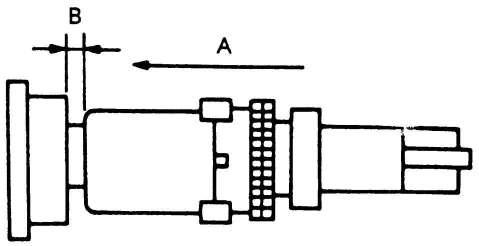


Fig. 4-2.

4-3. CENTERING ADJUSTMENT

Mode : Playback
Alignment tape : Monoscope section of the operation check tape (WR5-5CSP)

Adjusting method :

1) Turn the alignment magnet to center the picture.
2) Fix the alignment magnet with lacquer.

4-4. HORIZONTAL SIZE & VIEWFINDER SLANT ADJUSTMENT

Mode : Playback
Alignment tape : Monoscope section of the operation check tape (WR5-5CSP)

Adjusting method :

1) Turn the deflection coil so that picture slant is no more than 0° ± 1.5° .
2) Turn the yoke clamp clockwise to fix the deflection coil.

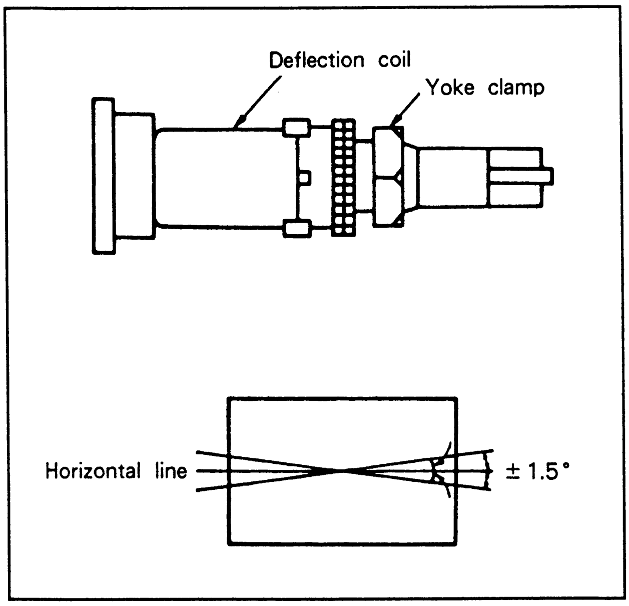


Fig. 4-3.

4-5. VERTICAL SIZE ADJUSTMENT

Mode : Playback
Alignment tape : For operation check (WR5-5CSP)

Adjusting method :

Adjust VR2 so that A and B in Fig. 4-4 become approximately equal (namely, the circle pattern becomes a perfect circle).

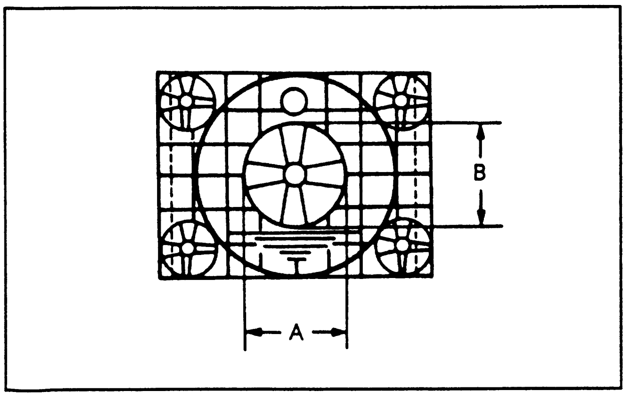


Fig. 4-4.

4-6. CONTRAST ADJUSTMENT

Mode : Playback
Alignment tape : Monoscope section of the operation check tape (WR5-5CSP)

Adjusting method :

Adjust to 4 ± 0.1V with VR3.

Note : Measure at the right end of the vertical period.

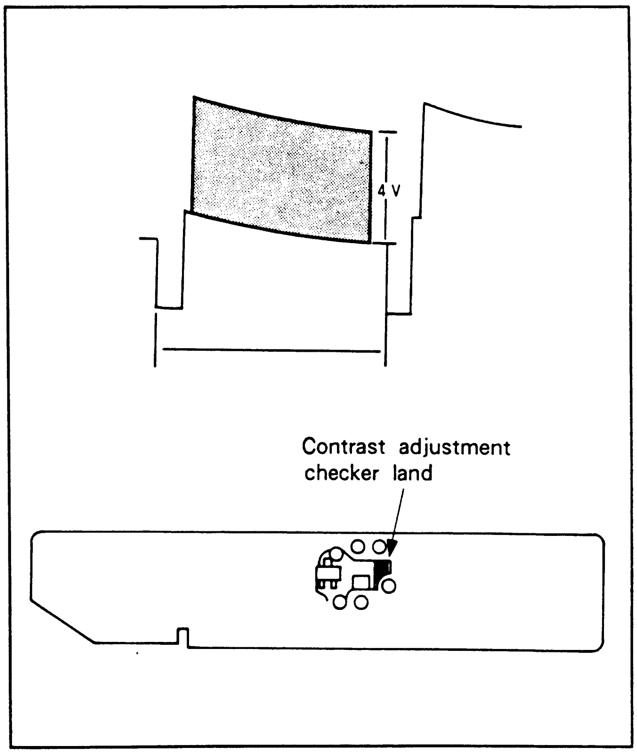


Fig. 4-5.

4-7. BRIGHTNESS ADJUSTMENT

Mode : Playback
Alignment tape : For operation check tape (WR5-5CSP)

Adjusting method :

Adjust to adequate brightness with VR5.

4-8. FOCUS ADJUSTMENT

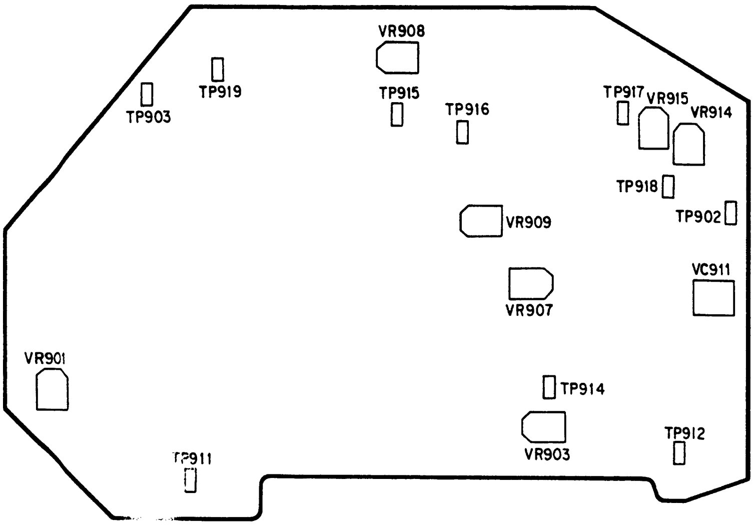
Mode : Playback
Alignment tape : Monoscope section of the operation check tape (WR5-5CSP)

Adjusting method :

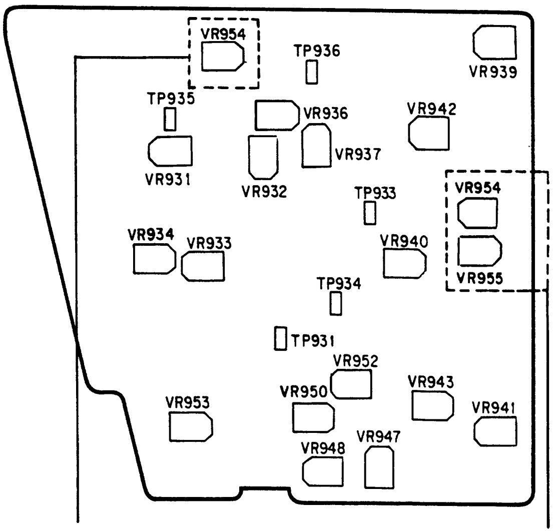
Adjust VR4 so as to optimize resolution of the monoscope pattern.

5. VR, TP LOCATION

CA1 Board (SIDE B)


VR908
TP919
TP903
TP915
TP916
TP917
VR915
VR914
TP918
TP902
VR909
VC911
VR907
VR901
TP914
TP912
VR903
TP911

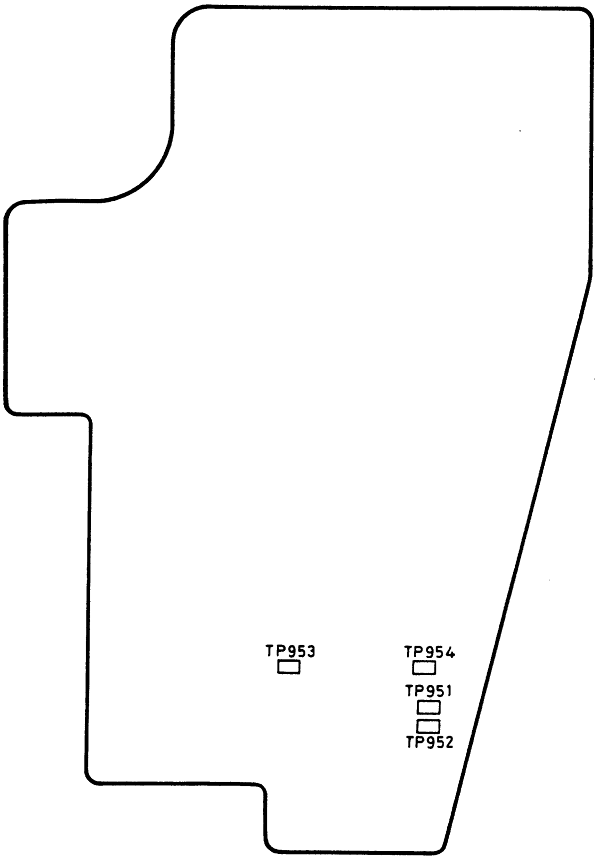
CA3 Board (SIDE A)


VR954
TP936
VR939
TP935
VR936
VR942
VR931
VR932
VR937
TP933
VR954
VR934
VR933
VR940
VR955
TP934
TP931
VR952
VR953
VR950
VR943
VR941
VR948
VR947

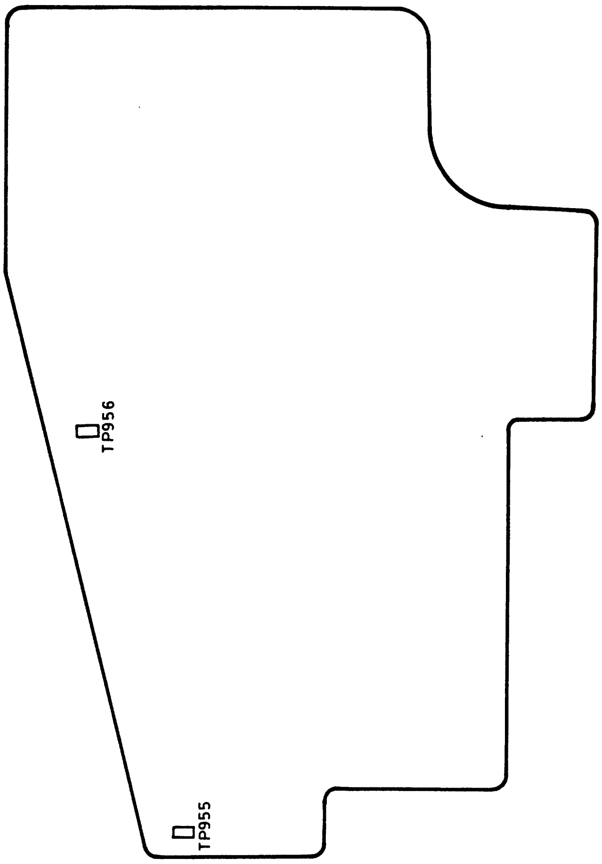
Without model in VM-D6P, VM-D16P and FA124

VM-D6P, VM-D16P, FA124 model only.

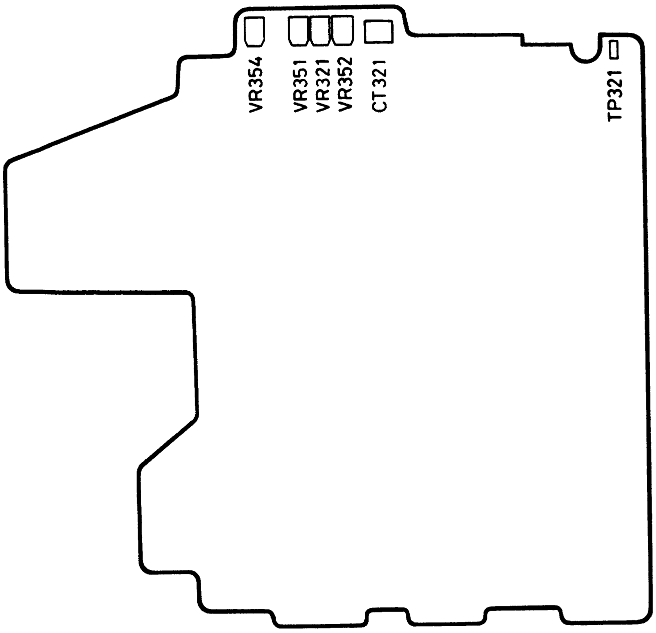
TC1 Board (SIDE A)


TP953
TP954
TP951
TP952

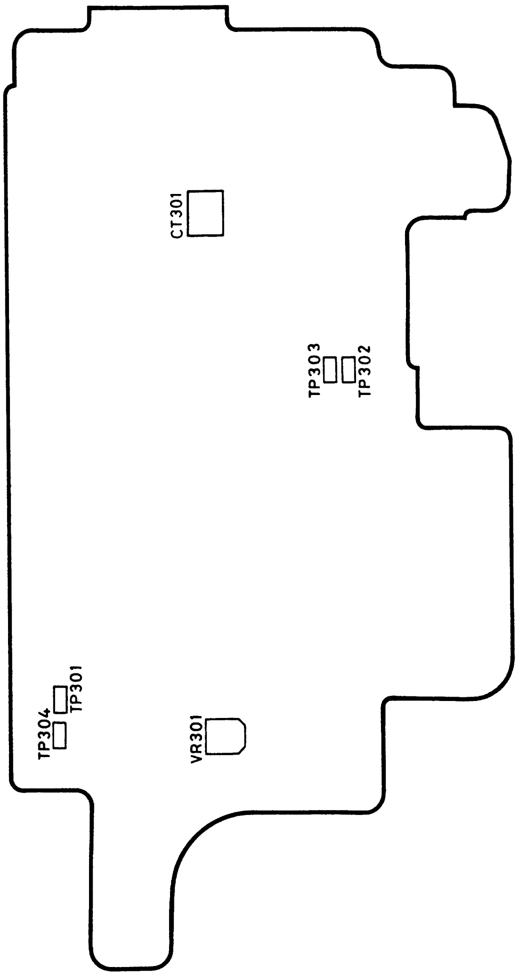
TC1 Board (SIDE B)


TP956
TP955

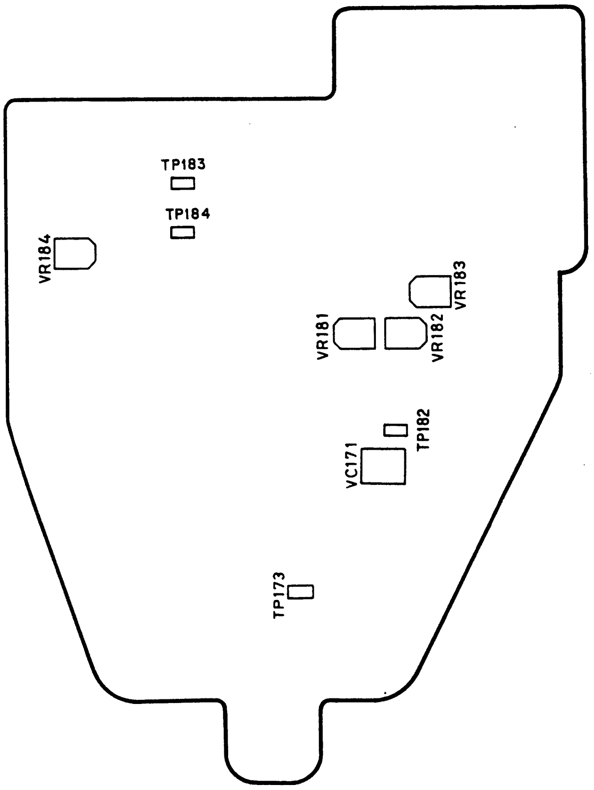
SV1 Board (SIDE B)


VR354
VR351
VR321
VR352
CT321
TP321

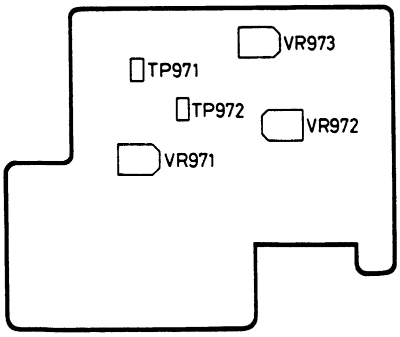
SY1 Board (SIDE A)


CT301
TP303
TP302
TP304
TP301
VR301

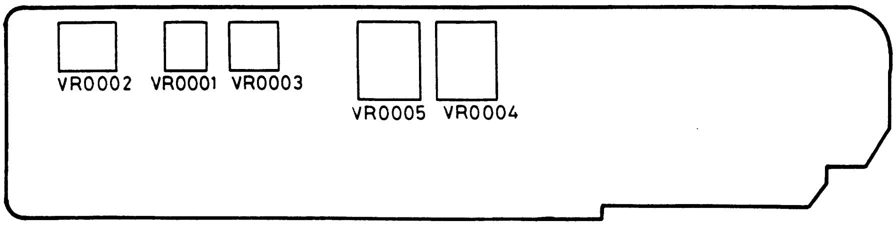
DM2 Board (SIDE A)


TP183
TP184
VR184
VR183
VR181
VR182
TP182
VC171
TP173

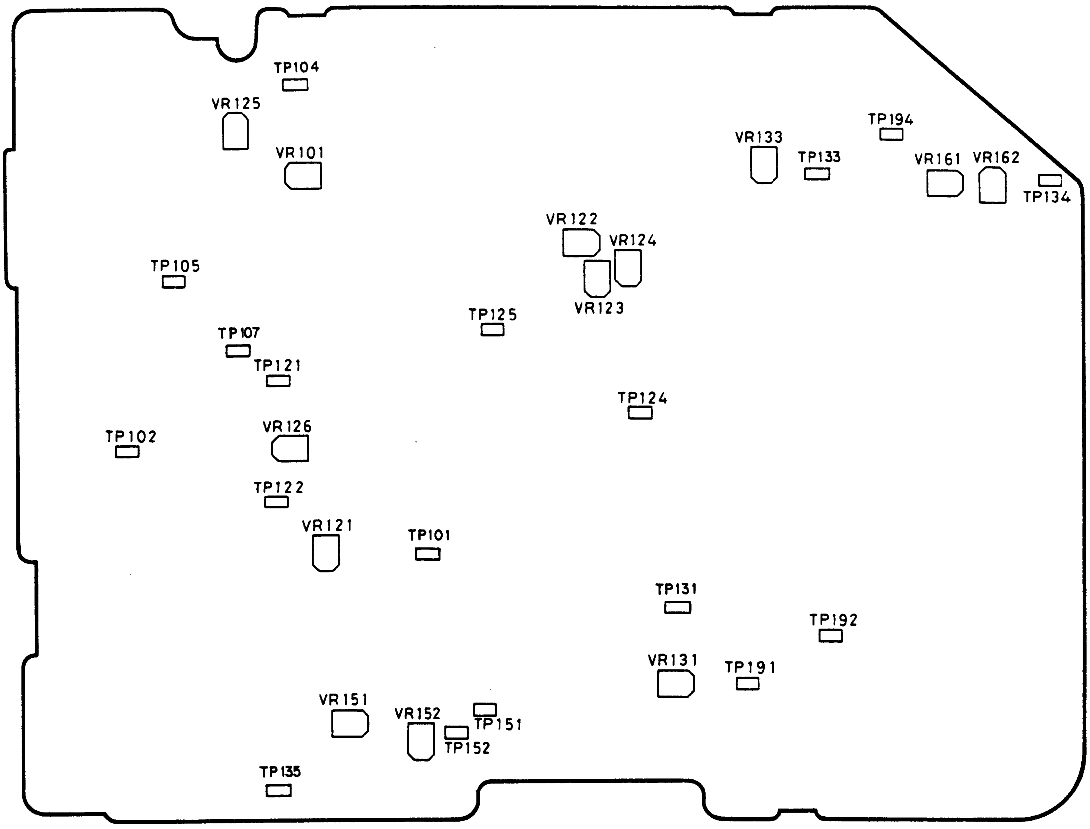
TC3 Board (SIDE B)


VR973
TP971
TP972
VR972
VR971

VF1 Board (SIDE A)


VR0002
VR0001
VR0003
VR0005
VR0004

VD1 Board (SIDE A)

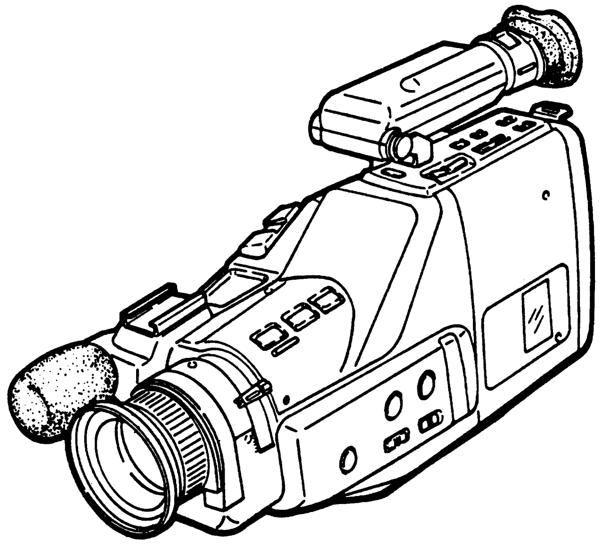

TP104
VR125
VR101
VR133
TP194
TP133
VR161
VR162
TP134
VR122
VR124
VR123
TP105
TP125
TP107
TP121
TP124
TP102
VR126
TP122
VR121
TP101
TP131
TP192
VR131
TP191
VR151
VR152
TP151
TP152
TP135

SANYO

PARTS LIST

8mm Camcorder

VM-D6P
VM-D16P



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PRODUCT SAFETY NOTICE

The components designated by a symbol (⚠) in this schematic diagram designates components whose value are of special significance to product safety. Should any component designated by a symbol need to be replaced, use only the part designated in the Parts List. Do not deviate from the resistance wattage and voltage rating shown.

Note : The parts codes of accessories and cabinet differ depending on destination.
Therefore the following ID codes are applied.

VM-D6P
- Germany : G
- UK : E
- Australia : A

VM-D6P
- Spain : SP
- M-East : ME
- Switzerland : SW

VM-D16P Spain : SP-2

REFERENCE No. WM-550046

ER91P/G, E, A, SP, ME, SW
ER91P/SP-2

LOCATION	PARTS NO.	DESCRIPTION
ACCESSORIES		
1	636 027 9568	CORR CASE,INNER(G)
2	636 029 2871	CORR CASE,INNER(A)
3	636 028 0878	CORR CASE,INNER(SP)
4	636 029 1423	CORR CASE,INNER(SP-2)
5	636 028 0861	CORR CASE,INNER(ME)
6	636 027 9575	CORR CASE,INNER(SW)
7	636 029 4288	CORR CASE,INNER(E)
8	636 025 5401	CUSHION,INNER,UPPER
9	636 025 5418	CUSHION,INNER,LOWER
10	636 027 6826	INSTRUCTION MANUAL(G,SW)
11	636 026 200[illegible]	INSTRUCTION MANUAL,ACC(G,SW)
12	636 026 517[illegible]	INSTRUCTION MANUAL(A)
13	636 026 7923	INSTRUCTION MANUAL,ACC(A)
14	636 027 8295	INSTRUCTION MANUAL(SP)
15	636 027 0831	INSTRUCTION MANUAL,ACC(SP)
16	636 027 8301	INSTRUCTION MANUAL(ME)
17	636 028 3992	INSTRUCTION MANUAL,ACC(ME)
18	636 027 8288	INSTRUCTION MANUAL(E)

LOCATION	PARTS NO.	DESCRIPTION
19	636 026 7893	INSTRUCTION MANUAL,ACC(E)
20	636 029 0662	INSTRUCTION MANUAL(SP-2)
21	636 029 0648	INSTRUCTION MANUAL,ACC(SP-2)
22	636 026 8777	ADAPTER,AC(G,SP,SP-2,ME,SW)
23	636 026 8791	ADAPTER,AC(A)
24	636 026 8784	ADAPTER,AC(E)
OR	636 029 4653	ADAPTER,AC(E)
25	636 018 9980	PLUG,AC ADAPTER(G,SP,SP-2,ME,SW)
26	636 002 7732	CORD,DC OUT
27	636 024 7239	CABLE,RF(G,E,A,ME,SW)
28	636 020 9282	AV CORD(SP,SP-2)
OR	636 024 7246	AV CORD(SP,SP-2)
29	636 027 0732	RF ADAPTOR(G,ME,SW)
30	636 026 6520	RF ADAPTOR(A)
31	636 027 0718	RF ADAPTOR(E)
32	636 022 2458	21/2 PIN AV ADAPTOR(SP,SP-2)
33	636 021 1919	BAND ASSY
34	636 028 9796	ASSY,SOFT CASE PACKING(E)

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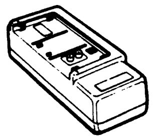

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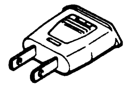

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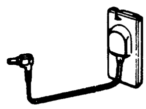

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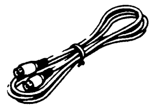

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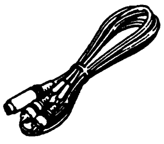

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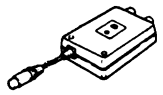

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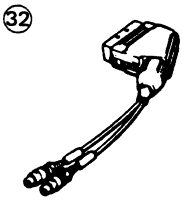

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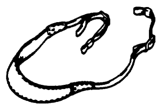

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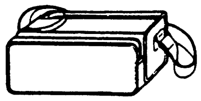
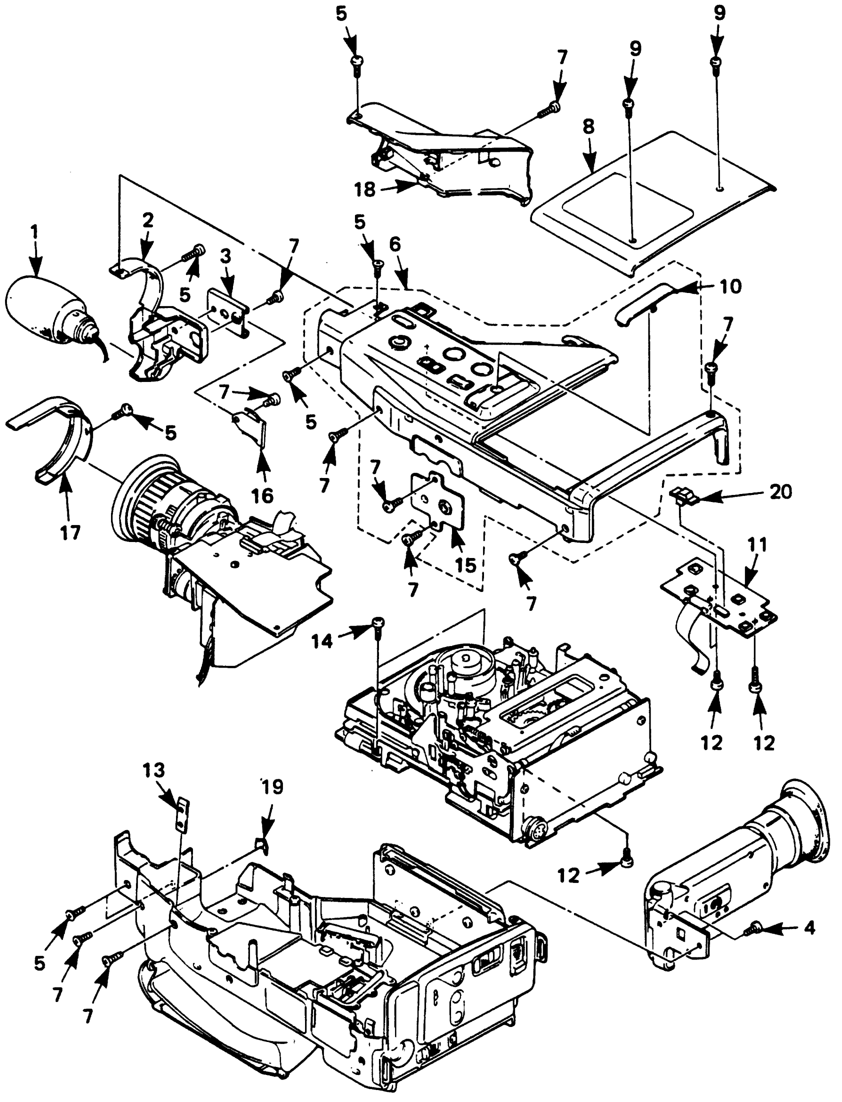


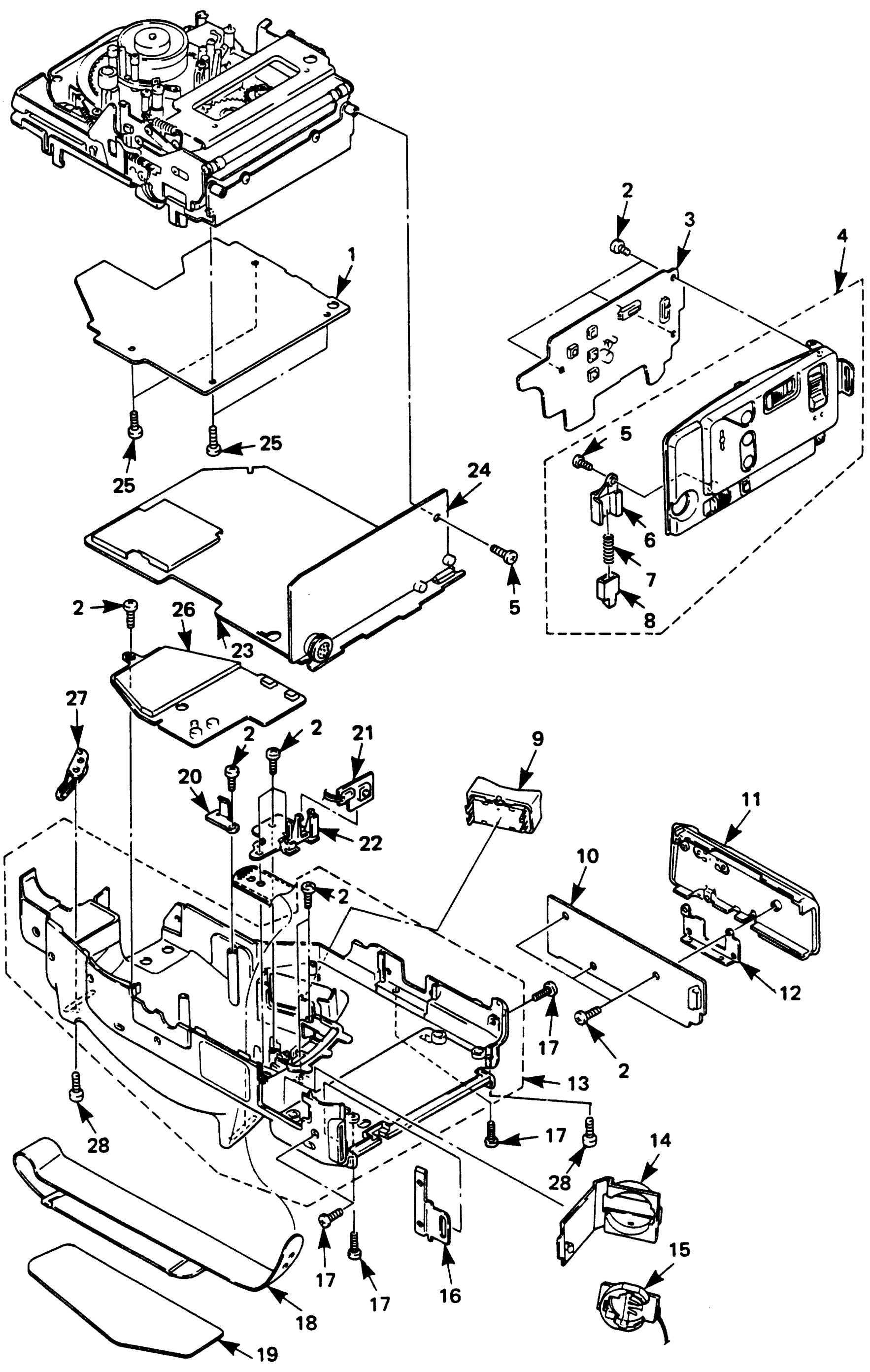
CABINET 1

LOCATION	PARTS NO.	DESCRIPTION
1	636 029 0341	ASSY,MICROPHONE
2	636 027 0428	ASSY,COVER,TOP
3	636 024 8045	SLIDE,ACC.SHOE
4	412 032 8501	SPECIAL SCREW
5	411 025 4308	SCR S-TPG BIN 2X6
6	636 027 9247	COMPL,CABINET,LEFT
7	411 030 5901	SPECIAL SCREW
8	636 027 1234	ASSY,DOOR(G,E,A,SP,ME,SW)
OR	636 029 1379	ASSY,DOOR(SP-2)
9	411 101 8107	SCR PAN PCS 1.7X8
10	636 027 9315	WINDOW
11	636 027 7724	COMPL,TC-5
12	411 025 4209	SCR S-TPG BIN 2X6
13	636 014 0912	PLATE NUT
14	411 025 9204	SCR S-TPG PAN 2X6
15	636 025 4961	ASSY,STAND
16	636 024 8014	PLATE SPRING,ACC.SHOE
17	636 024 6379	FRAME,LENS
18	636 027 9261	ASSY,CABINET,TOP
19	636 027 4105	SPACER,MIC
20	636 026 8715	KNOB,WHITE BARANCE



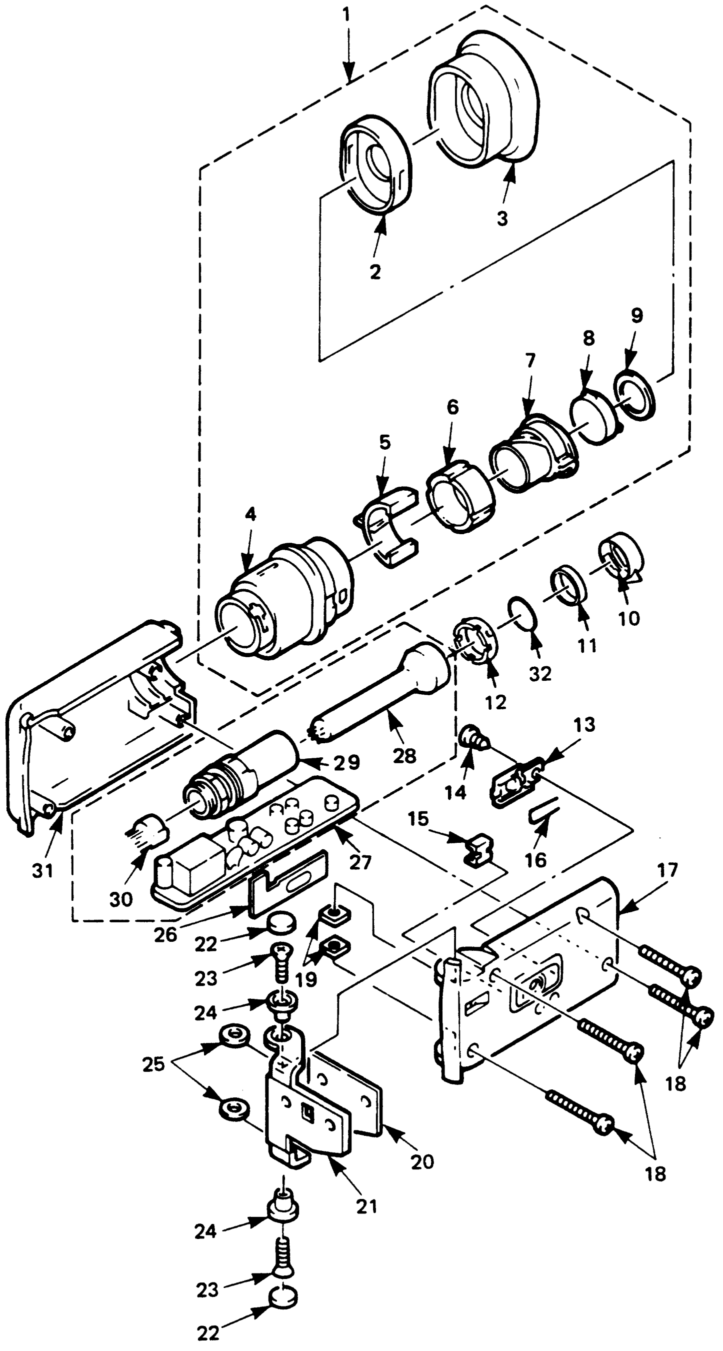
CABINET 2

LOCATION	PARTS NO.	DESCRIPTION
1	636 026 1112	COMPL,SV-1
2	411 025 4209	SCR S-TPG BIN 2X6
3	636 026 1129	COMPL,SY-1
4	636 026 9415	ASSY,TERMINAL,BACK PANEL
5	411 025 9204	SCR S-TPG PAN 2X6
6	636 024 7703	HOLDER
7	636 024 7994	SPRING,LOCK BATTERY
8	636 027 8523	SLIDE
9	636 025 4558	SW,ZOOM
10	636 029 4875	COMPL,SY-2
11	636 026 9392	ASSY,PANEL,CONTROL
12	636 024 7673	BRACKET
13	636 026 2577	ASSY,CABINET,RIGHT
14	636 024 7390	LID,LITHUM
15	636 025 2240	COMPL,TB-2
16	636 027 5799	BRACKET,BELT,REAR
17	411 030 5901	SCR BIN 2X4
18	636 024 8090	ASSY,BELT
19	636 021 3197	PAD
20	636 024 7680	BRACKET
21	636 025 2271	COMPL,TB-1
22	636 024 7765	HOLDER
23	636 026 1105	COMPL,VD-1
24	636 026 1167	COMPL,VD-2
25	412 033 9903	SPECIAL SCREW
26	636 026 1150	COMPL,DM-2
27	636 028 9611	BRACKET,BELT,FRONT
28	411 030 7301	SCR BIN 2X6



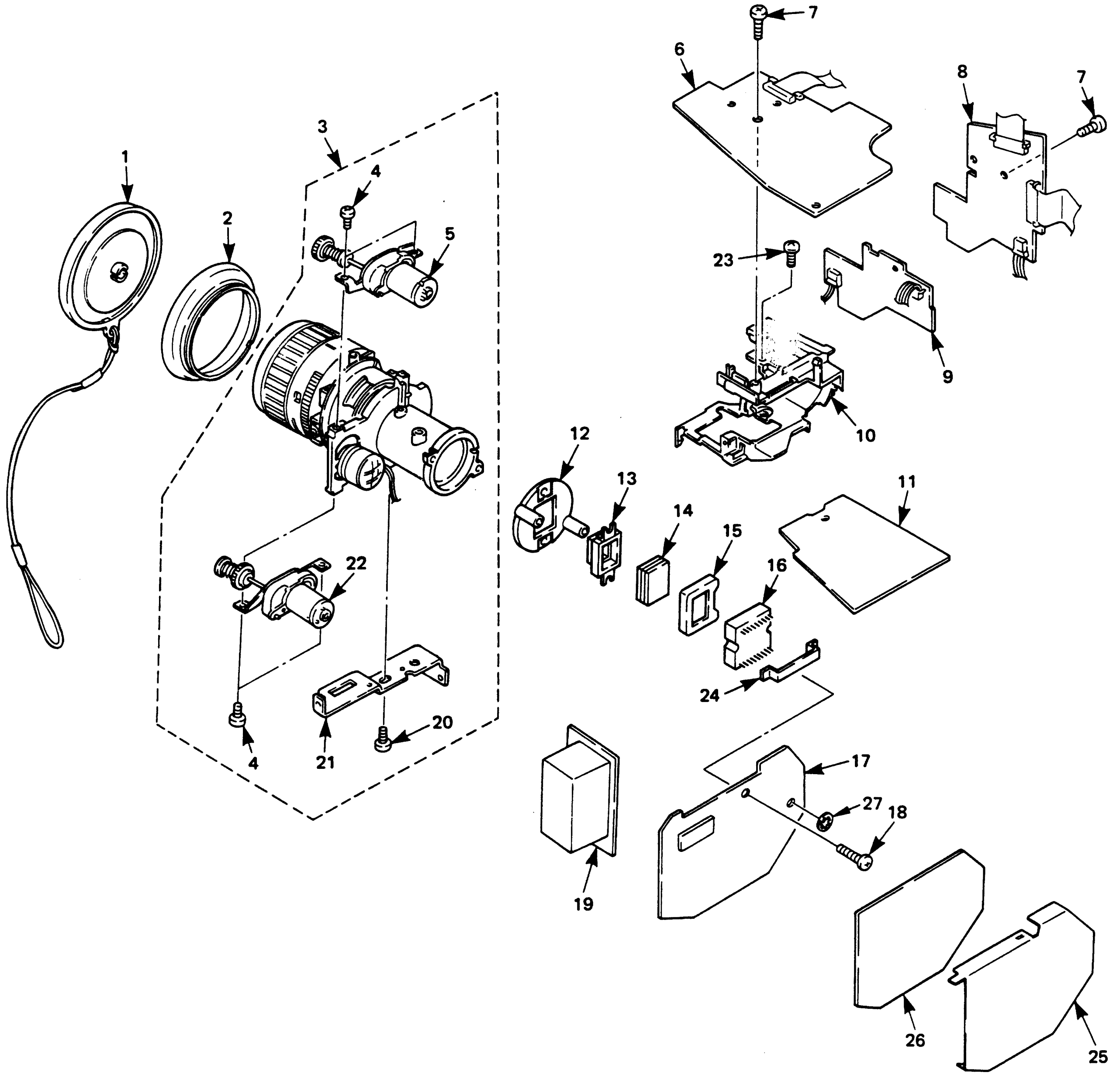
VIEWFINDER

LOCATION	PARTS NO.	DESCRIPTION
1	636 024 3200	COMPL.SLEEVE
2	636 014 2268	FIXER.LENS
3	636 013 7714	HOOD.EYE CUP
4	636 024 2975	SLEEVE
5	636 013 5543	SLIDE KNOB
6	636 014 3777	RING
7	636 013 3204	FRAME
8	636 012 7777	LENS ASSY
9	636 013 7424	SHEET
10	636 023 1412	HOLDER
11	636 023 1450	RING.CRT
12	636 023 1467	RING.HOLD.CRT
13	636 022 4766	HOLDER.SPRING
14	411 022 7708	SCR S-TPG PAN 2X5
15	636 023 1443	CLAMP
16	636 022 4971	SPRING.STOPPER.VF
17	636 025 7245	CABINET.BOTTOM
18	411 125 5809	SCR TPG PAN PCS 1.7X8
19	636 022 5091	GUIDE
20	636 024 7932	ADHESIVE
21	636 025 5005	ASSY.BRACKET.VF
22	636 022 4773	CAP
23	412 033 8609	SPECIAL SCREW
24	636 022 5084	BUSH
25	636 022 4933	SPACER.BRACKET
26	636 024 6096	EARTH
27	636 026 8036	COMPL.VF-1
28	413 006 6806	CRT C1M52P45
29	636 024 3033	YOKE.DEFLECTION
OR	636 024 3040	YOKE.DEFLECTION
30	636 024 3118	CORD.CRT
31	636 025 7221	CABINET.TOP
32	636 023 1429	SPACER.CRT



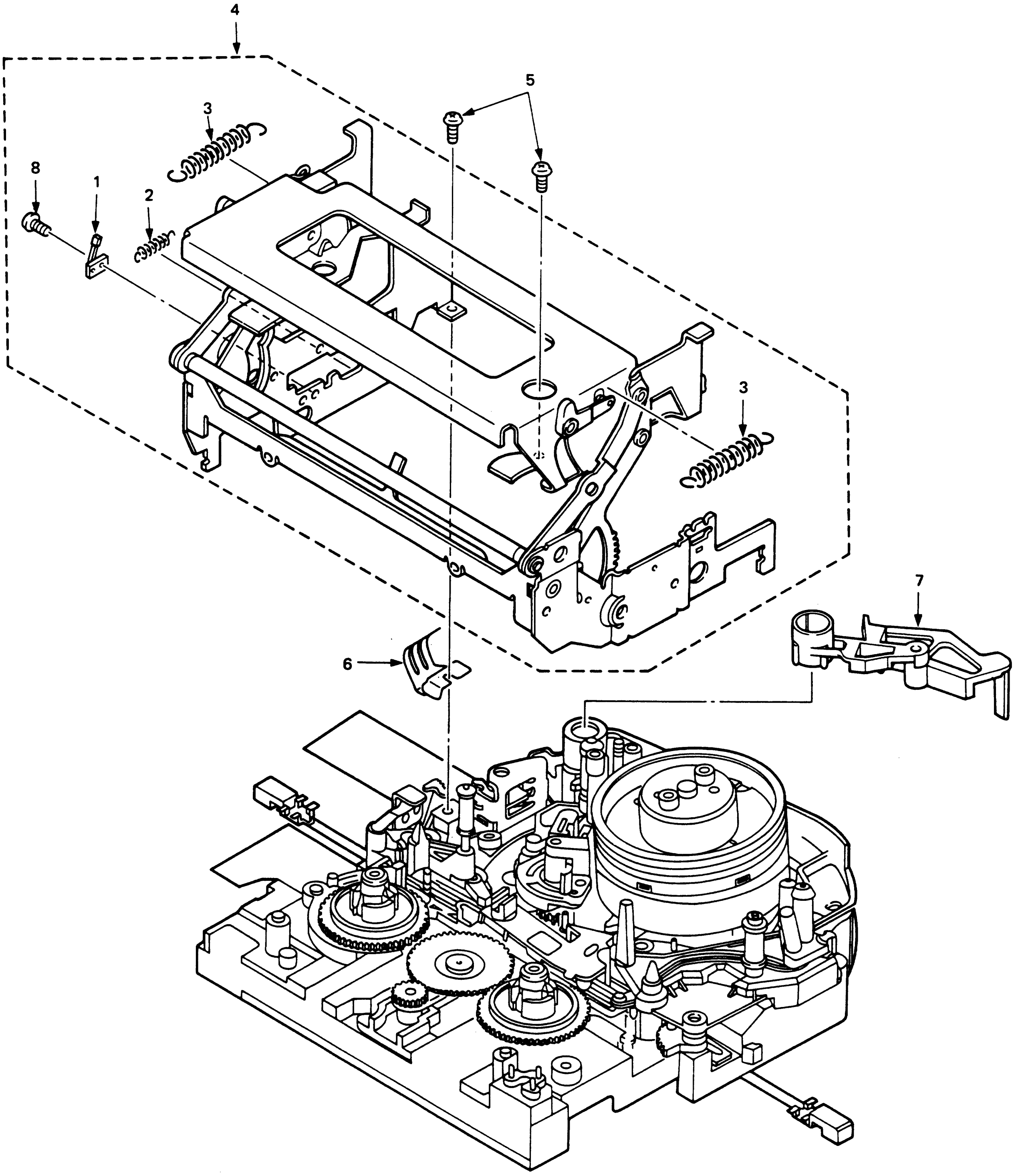
CAMERA

LOCATION	PARTS NO.	DESCRIPTION
1	636 026 5578	CAP
2	636 024 3392	HOOD,LENS
3	636 025 7153	ASSY,LENS
4	411 020 0800	SCR PAN PCS 1.7X4
5	636 027 1166	MOTOR,FOCUS
6	636 027 7762	COMPL,TC-1
7	411 025 4209	SCR S-TPG BIN 2X6
8	636 026 1143	COMPL,DM-1
9	636 030 4017	COMPL,AD-1
10	636 024 7758	HOLDER
11	636 027 7755	COMPL,CA-3
12	636 024 1244	BRACKET,CCD
13	636 026 3482	HOLDER
14	636 026 4106	OPTICAL FILTER
14	636 026 4113	OPTICAL FILTER
OR	636 026 4120	OPTICAL FILTER
OR	636 026 4137	OPTICAL FILTER
15	636 014 0356	SPACER,CCD
16	409 183 2106	IC ICX027AK-3
17	636 027 7748	COMPL,CA-1
18	411 030 4508	SCR BIN 2X14
19	636 026 4984	COMPL,CA-2
20	411 021 0809	SCR S-TPG BIN 2X6
21	636 024 7659	BRACKET,LENS
22	636 027 1173	MOTOR,ZOOM
23	411 025 5008	SCR S-TPG BIN 2.6X6
24	636 024 1299	PLATE SPRING
25	636 027 9094	SHIELD PLATE
26	636 027 0077	INSULATOR
27	411 101 8206	WASHER IN TW 2



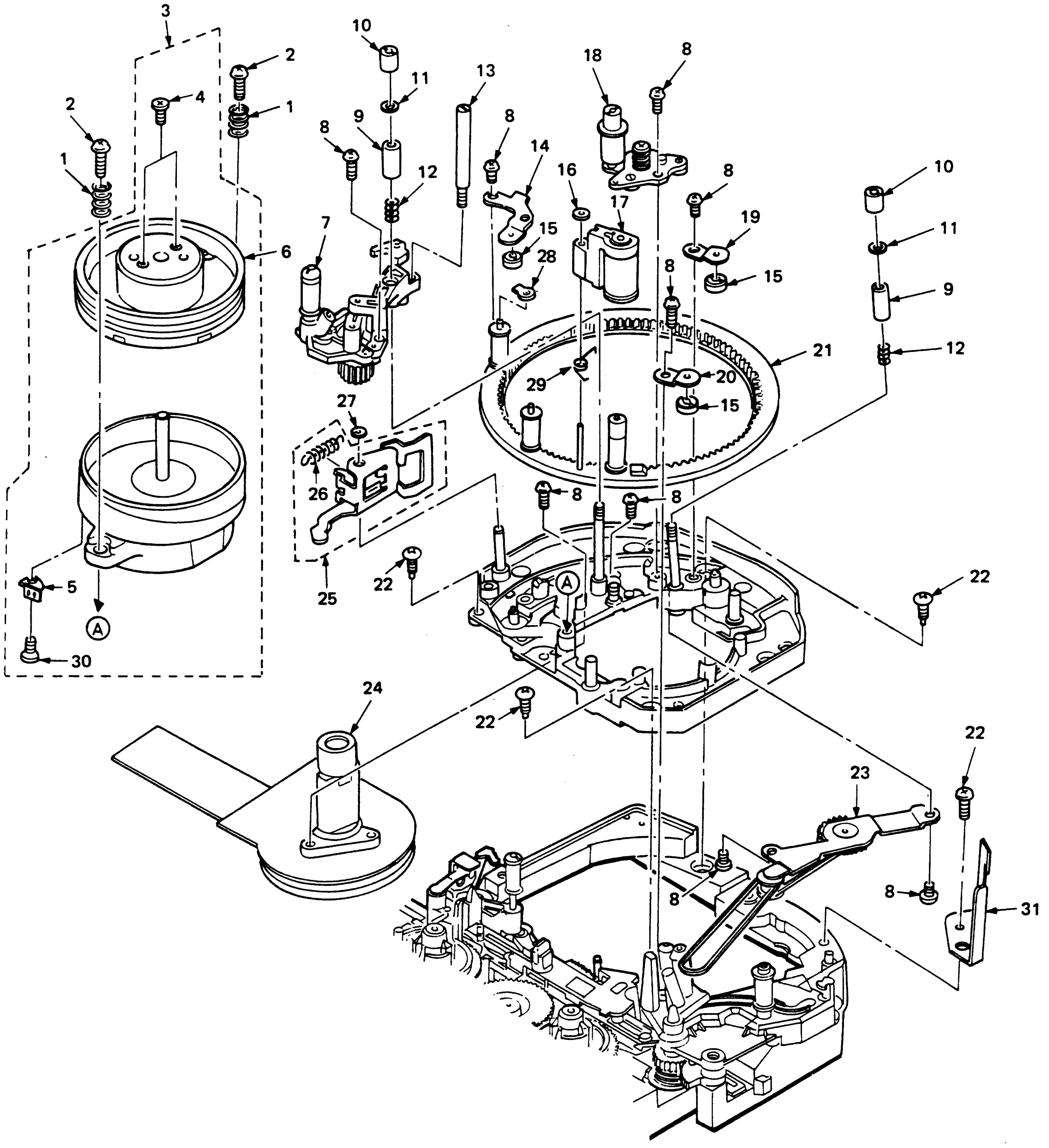
MECHANISM 1

LOCATION	PARTS NO.	DESCRIPTION
1	636 024 3989	SW,CASSETTE-IN
2	636 023 9401	SPRING,SWITCH,CASSETTE
3	636 023 9418	SPRING,HOLDER-UP
4	636 023 9340	CASSETTE MECHANISM
5	412 032 4107	SPECIAL SCREW
6	636 024 7857	EARTH
7	636 014 2299	STOPPER
8	411 018 6906	SCR PAN PCS 2X3



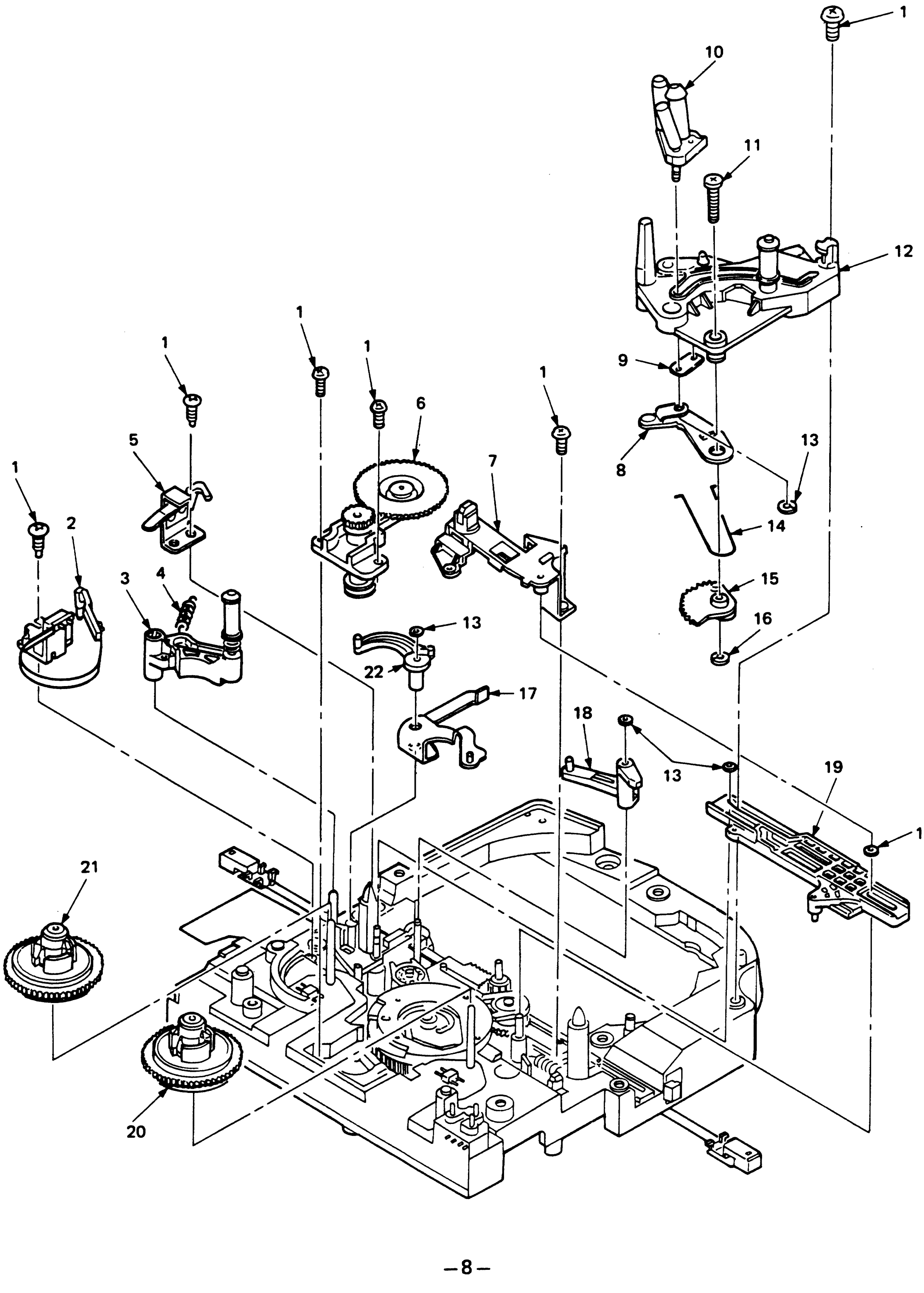
MECHANISM 2

LOCATION	PARTS NO.	DESCRIPTION
1	636 023 9203	SPRING
2	411 047 2306	SCR PAN+FLG 2X4
3	636 025 6460	CYLINDER
4	636 023 0750	SCREW
5	636 025 8204	RESISTOR.DEW SENSOR
6	636 025 6385	ASSY.CYLINDER.UPPER
7	636 024 1237	ASSY.BRACKET.LEVER.PRE LOAD
8	411 002 4901	SCP PAN 2X4
9	636 023 8671	GUIDE.TAPE
10	636 023 8688	GUIDE
11	636 023 8664	RING
12	636 014 5986	SPRING COIL
13	636 025 1106	GUIDE
14	636 023 2419	BRACKET.RING.LOADING
15	636 023 3263	RING
16	412 028 2902	SPECIAL WASHER
17	636 023 7605	ASSY.LEVER.PINCH ROLLER
18	636 023 7650	COMPL.GUIDE.TG5
19	636 023 2426	BRACKET.RING.LOADING
20	636 023 2433	BRACKET.RING.LOADING
21	636 023 7612	ASSY.RING.LOADING
22	412 032 4107	SPECIAL SCREW
23	636 023 8756	ASSY.BRACKET.TIMING BELT
24	636 023 3430	MOTOR.CAPSTAN
25	636 024 1121	ASSY.LEVER.PINCH PRESS
26	636 014 5948	SPRING COIL.PINCH PRESS
27	412 028 3008	SPECIAL WASHER
28	636 027 0107	ADHESIVE
29	636 023 8572	SPRING.PINCH ROLLER
30	411 018 6906	SCR PAN PCS 2X3
31	636 026 5899	BRACKET.GUARD



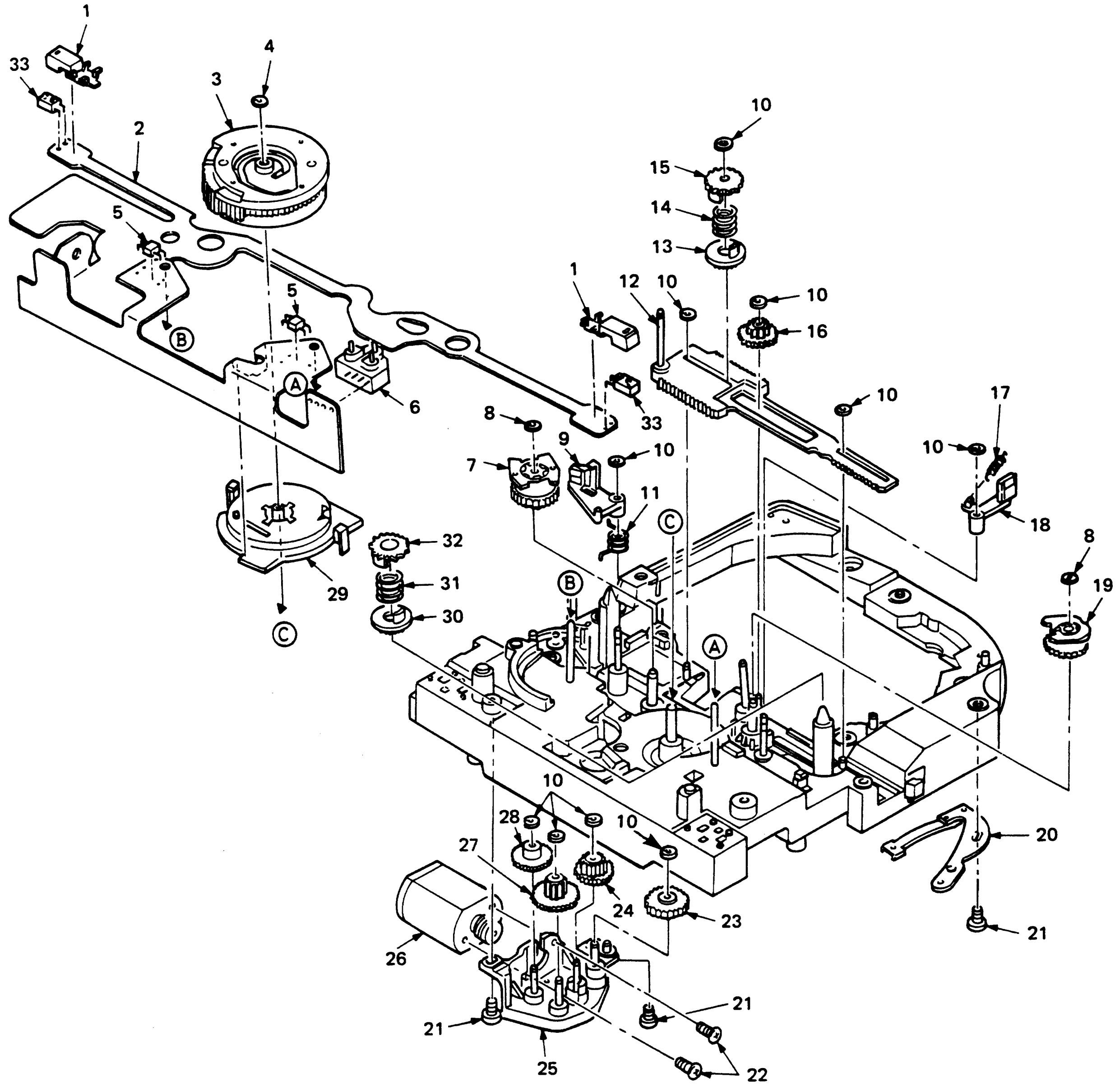
MECHANISM 3

LOCATION	PARTS NO.	DESCRIPTION
1	412 032 4107	SPECIAL SCREW
2	636 023 9029	ASSY,BT,BAND
3	636 023 8893	COMPL,LEVER,TG1
4	636 023 9142	SPRING,TG1
5	636 023 8848	ASSY,PLATE SPRING
6	636 023 8992	ASSY,IDLER
7	636 025 2257	COMPL,OT-1
8	636 023 8886	ASSY,LEVER,PRE LOAD
9	412 021 4408	SPECIAL WASHER
10	636 025 0338	ASSY BRACKET TAPE GUIDE
11	412 032 4206	SPECIAL SCREW
12	636 023 8831	ASSY,BASE,PRE LOAD
13	412 028 2902	SPECIAL WASHER
14	636 023 8565	SPRING,PRE LOAD
15	636 023 2945	GEAR,PRE LOAD
16	412 021 9502	SPECIAL WASHER
17	636 023 7988	ASSY,LEVER,PINCH PRESS
18	636 023 2785	LEVER
19	636 023 8923	ASSY,SLIDE,CAM
20	636 023 8985	ASSY,REEL,TAKE-UP
21	636 023 8978	ASSY,REEL,SUPPLY
22	636 023 2754	LEVER,EJECT



MECHANISM 4

LOCATION	PARTS NO.	DESCRIPTION
1	636 023 2471	HOLDER,PHOTO DIODE
2	636 023 3379	F-PCB
3	636 023 3089	CAM,MODE CHANGE
4	411 015 8309	RING,E 1.5
5	407 094 1409	SENSOR,REEL,SPI-315-25-BD
6	636 023 3447	SW,RECOGNITION
7	636 023 3058	GEAR,PRE LOAD,LEFT
8	412 028 3008	SPECIAL WASHER
9	636 023 9036	ASSY,BRAKE,S-SOFT
10	412 028 2902	SPECIAL WASHER
11	636 023 9234	SPRING,S-SOFT
12	636 023 8961	ASSY,RACK
13	636 023 2990	GEAR,LOADING,RING
14	636 023 8534	SPRING,GEAR,LOADING,RING
15	636 024 5723	ASSY,GEAR,LOADING,RING
16	636 023 3003	GEAR,PRE LOAD
17	636 023 9159	SPRING,T-SOFT
18	636 023 9043	ASSY,BRAKE,T-SOFT
19	636 023 3065	GEAR,PRE LOAD,RIGHT
20	636 023 9104	ASSY,BRUSH
21	412 032 4107	SPECIAL SCREW
22	411 039 0105	SCP PAN 2X3
23	636 023 3010	GEAR,LOADING,NO.4
24	636 023 3027	GEAR,LOADING,NO.3
25	636 023 8855	PLATE,LOADING
26	636 023 8749	ASSY,MOTOR,LOADING
27	636 023 3034	GEAR,LOADING,NO.2
28	636 023 3041	GEAR,LOADING,NO.1
29	636 023 3461	SW,MODE
30	636 023 2952	GEAR,PRE LOAD
31	636 023 8541	SPRING,GEAR,PRE LOAD
32	636 023 2969	GEAR,PRE LOAD
33	407 121 5400	PHOTO DIODE PT480FS



ELECTRICAL PARTS

NOTE;

*Materials of Capacitors and Resistors are abbreviated as follows;

Resistors

MT-FILE	Metal Film Resistor
MT-GLAZE	Metal Glaze Resistor
OXIDE-MT	Oxide Metal Film Resistor

Capacitors

MT-POLYEST	Metallized Polyester Capacitor
MT-COMPO	Metallized Composite Capacitor
TA-SOLID	Tantalum Solid Capacitor
AL-SOLID	Aluminum Solid Capacitor
NP-ELECT	Non-Polarized Electrolytic Capacitor
OS-SOLID	Aluminum Solid Capacitors with Organic Semiconductive Electrolytic Capacitor
DL-ELECT	Double Layered Electrolytic Capacitor

*Tolerance of Capacitor(10pF over) and Resistor are noted with follow symboles.

F ············ ±1%　G ············ ±2%　J ············ ±5%　K ············ ±10%

M ············ ±20%　N ············ ±30%　Z ············ +80% ~ −20%　D ············ ±0.5%

LOCATION	PARTS NO.	DESCRIPTION
CŌMPL,VD-1		
COMPL.NO.	636 026 1105	
	636 023 5632	SHIELD PLATE,SIDE A
	636 023 5649	SHIELD PLATE,SIDE B
	636 025 5012	ASSY,PLATE SPRING
	636 024 8007	PLATE SPRING
	636 028 1288	HOLDER
B1001 ⚠	636 024 8809	UNIT,DC/DC CONVERTOR
C1001	403 149 7303	CERAMIC 0.47U Z 16V
C1002	403 068 0409	CERAMIC 0.1U Z 25V
C1003	403 114 5600	TA-SOLID 3.3U M 6.3V
C1004	403 149 7303	CERAMIC 0.47U Z 16V
C1005	403 162 4006	ELECT 22U M 6.3V
C1006	403 068 0409	CERAMIC 0.1U Z 25V
C1007	403 134 7400	CERAMIC 1U Z 16V
C1008	403 114 5402	TA-SOLID 2.2U M 10V
C1009	403 068 0409	CERAMIC 0.1U Z 25V
C1010	403 162 4006	ELECT 22U M 6.3V
C1011	403 153 0802	ELECT 220U M 4V
C1012	403 089 6206	TA-SOLID 4.7U M 4V
C1013	403 067 9304	CERAMIC 0.01U K 25V
C1014	403 149 7303	CERAMIC 0.47U Z 16V
C1015	403 067 9304	CERAMIC 0.01U K 25V
C1016	403 068 0409	CERAMIC 0.1U Z 25V
C1018	403 089 4806	TA-SOLID 10U M 4V
C1019	403 134 7400	CERAMIC 1U Z 16V
C1020	403 153 0901	ELECT 100U M 6.3V
C1022	403 012 6808	CERAMIC 15P J 50V
C1023	403 068 0409	CERAMIC 0.1U Z 25V
C1024	403 009 5708	CERAMIC 100P J 50V
C1031	403 134 7400	CERAMIC 1U Z 16V
C1032	403 030 6903	CERAMIC 68P J 50V
C1033	403 026 2803	CERAMIC 47P J 50V
C1034	403 020 0409	CERAMIC 27P J 50V
C1081	403 043 0202	ELECT 220U M 16V
C1082	403 038 9708	ELECT 330U M 6.3V
C1083	403 134 7400	CERAMIC 1U Z 16V
C1101	403 134 7400	CERAMIC 1U Z 16V
C1102	403 162 4006	ELECT 22U M 6.3V
C1103	403 067 9304	CERAMIC 0.01U K 25V
C1104	403 114 5600	TA-SOLID 3.3U M 6.3V
C1106	403 162 4006	ELECT 22U M 6.3V
C1107	403 134 7400	CERAMIC 1U Z 16V
C1108	403 067 9304	CERAMIC 0.01U K 25V
C1109	403 162 4006	ELECT 22U M 6.3V
C1110	403 067 9304	CERAMIC 0.01U K 25V
C1111	403 068 0409	CERAMIC 0.1U Z 25V

LOCATION	PARTS NO.	DESCRIPTION
C1112	403 067 9304	CERAMIC 0.01U K 25V
C1113	403 067 9304	CERAMIC 0.01U K 25V
C1170	403 134 7400	CERAMIC 1U Z 16V
C1171	403 134 7400	CERAMIC 1U Z 16V
C1172	403 134 7400	CERAMIC 1U Z 16V
C1173	403 089 6206	TA-SOLID 4.7U M 4V
C1174	403 114 5600	TA-SOLID 3.3U M 6.3V
C1175	403 134 7400	CERAMIC 1U Z 16V
C1176	403 134 7400	CERAMIC 1U Z 16V
C1182	403 134 7400	CERAMIC 1U Z 16V
C1183	403 067 9304	CERAMIC 0.01U K 25V
C1201	403 033 4500	CERAMIC 82P J 50V
C1202	403 162 4709	ELECT 10U M 16V
C1203	403 067 9304	CERAMIC 0.01U K 25V
C1204	403 134 7400	CERAMIC 1U Z 16V
C1206	403 134 7400	CERAMIC 1U Z 16V
C1208	403 089 6206	TA-SOLID 4.7U M 4V
C1209	403 162 4709	ELECT 10U M 16V
C1210	403 162 4709	ELECT 10U M 16V
C1211	403 067 9304	CERAMIC 0.01U K 25V
C1213	403 069 1702	CERAMIC 1000P K 50V
C1214	403 162 4709	ELECT 10U M 16V
C1215	403 134 7400	CERAMIC 1U Z 16V
C1217	403 018 0503	CERAMIC 22P J 50V
C1218	403 067 9304	CERAMIC 0.01U K 25V
C1220	403 089 4806	TA-SOLID 10U M 4V
C1221	403 134 7400	CERAMIC 1U Z 16V
C1223	403 026 7501	CERAMIC 470P J 50V
C1224	403 024 7107	CERAMIC 390P J 50V
C1225	403 089 4806	TA-SOLID 10U M 4V
C1228	403 020 5503	CERAMIC 270P J 50V
C1229	403 068 0409	CERAMIC 0.1U Z 25V
C1230	403 068 0409	CERAMIC 0.1U Z 25V
C1231	403 162 4006	ELECT 22U M 6.3V
C1232	403 068 0409	CERAMIC 0.1U Z 25V
C1233	403 068 0409	CERAMIC 0.1U Z 25V
C1234	403 067 9304	CERAMIC 0.01U K 25V
C1238	403 067 9304	CERAMIC 0.01U K 25V
C1239	403 068 0409	CERAMIC 0.1U Z 25V
C1240	403 068 0409	CERAMIC 0.1U Z 25V
C1241	403 153 0901	ELECT 100U M 6.3V
C1242	403 134 7400	CERAMIC 1U Z 16V
C1243	403 018 7403	CERAMIC 220P J 50V
C1244	403 068 0409	CERAMIC 0.1U Z 25V
C1245	403 162 4006	ELECT 22U M 6.3V
C1246	403 162 4006	ELECT 22U M 6.3V
C1247	403 067 9304	CERAMIC 0.01U K 25V
C1250	403 089 6206	TA-SOLID 4.7U M 4V
C1251	403 009 5708	CERAMIC 100P J 50V
C1252	403 028 4102	CERAMIC 56P J 50V

LOCATION	PARTS NO.	DESCRIPTION		
C1253	403 011 4904	CERAMIC	120P J	50V
C1254	403 008 7406	CERAMIC	10P D	50V
C1261	403 010 8507	CERAMIC	12P J	50V
C1262	403 033 4500	CERAMIC	82P J	50V
C1263	403 020 0409	CERAMIC	27P J	50V
C1264	403 033 4500	CERAMIC	82P J	50V
C1265	403 014 3409	CERAMIC	18P J	50V
C1266	403 032 8608	CERAMIC	8P D	50V
C1267	403 024 2102	CERAMIC	39P J	50V
C1281	403 067 9304	CERAMIC	0.01U K	25V
C1282	403 033 4500	CERAMIC	82P J	50V
C1302	403 068 0409	CERAMIC	0.1U Z	25V
C1307	403 153 0901	ELECT	100U M	6.3V
C1308	403 068 0409	CERAMIC	0.1U Z	25V
C1309	403 071 8102	CERAMIC	2200P K	50V
C1310	403 022 8205	CERAMIC	33P J	50V
C1311	403 026 2803	CERAMIC	47P J	50V
C1312	403 009 5708	CERAMIC	100P J	50V
C1313	403 010 8507	CERAMIC	12P J	50V
C1314	403 014 3409	CERAMIC	18P J	50V
C1315	403 022 8205	CERAMIC	33P J	50V
C1316	403 020 5503	CERAMIC	270P J	50V
C1317	403 067 9304	CERAMIC	0.01U K	25V
C1319	403 068 5107	CERAMIC	0.047U Z	25V
C1320	403 067 9304	CERAMIC	0.01U K	25V
C1321	403 067 9304	CERAMIC	0.01U K	25V
C1322	403 008 7406	CERAMIC	10P D	50V
C1323	403 067 9304	CERAMIC	0.01U K	25V
C1324	403 073 9107	CERAMIC	4700P K	50V
C1325	403 068 0409	CERAMIC	0.1U Z	25V
C1326	403 033 4500	CERAMIC	82P J	50V
C1327	403 026 2803	CERAMIC	47P J	50V
C1328	403 067 9304	CERAMIC	0.01U K	25V
C1329	403 025 8905	CERAMIC	43P J	50V
C1330	403 012 6808	CERAMIC	15P J	50V
C1331	403 067 9304	CERAMIC	0.01U K	25V
C1332	403 033 4500	CERAMIC	82P J	50V
C1333	403 014 9203	CERAMIC	180P J	50V
C1334	403 026 2803	CERAMIC	47P J	50V
C1335	403 070 8806	CERAMIC	1500P K	50V
C1336	403 018 0503	CERAMIC	22P J	50V
C1337	403 028 4102	CERAMIC	56P J	50V
C1338	403 069 1702	CERAMIC	1000P K	50V
C1339	403 026 7501	CERAMIC	470P J	50V
C1340	403 067 9304	CERAMIC	0.01U K	25V
C1341	403 067 9304	CERAMIC	0.01U K	25V
C1342	403 067 9304	CERAMIC	0.01U K	25V
C1343	403 068 0409	CERAMIC	0.1U Z	25V
C1502	403 067 9304	CERAMIC	0.01U K	25V
C1511	403 010 5001	CERAMIC	110P J	50V
C1512	403 069 1702	CERAMIC	1000P K	50V
C1513	403 089 6206	TA-SOLID	4.7U M	4V
C1514	403 162 4709	ELECT	10U M	16V
C1515	403 067 9304	CERAMIC	0.01U K	25V
C1516	403 069 1702	CERAMIC	1000P K	50V
C1517	403 024 7107	CERAMIC	390P J	50V
C1518	403 009 5708	CERAMIC	100P J	50V
C1519	403 020 0409	CERAMIC	27P J	50V
C1520	403 067 9304	CERAMIC	0.01U K	25V
C1521	403 033 9000	CERAMIC	820P J	50V
C1522	403 023 4404	CERAMIC	330P J	50V
C1523	403 009 5708	CERAMIC	100P J	50V
C1524	403 069 1702	CERAMIC	1000P K	50V
C1525	403 090 7308	TA-SOLID	4.7U M	10V
C1561	403 020 0409	CERAMIC	27P J	50V
C1562	403 014 9203	CERAMIC	180P J	50V
C1563	403 020 0409	CERAMIC	27P J	50V
C1601	403 067 9304	CERAMIC	0.01U K	25V
C1602	403 008 7406	CERAMIC	10P D	50V

LOCATION	PARTS NO.	DESCRIPTION		
C1603	403 067 9304	CERAMIC	0.01U K	25V
C1604	403 067 9304	CERAMIC	0.01U K	25V
C1605	403 067 9304	CERAMIC	0.01U K	25V
C1606	403 008 7406	CERAMIC	10P D	50V
C1607	403 067 9304	CERAMIC	0.01U K	25V
C1608	403 067 9304	CERAMIC	0.01U K	25V
C1610	403 067 9304	CERAMIC	0.01U K	25V
C1611	403 134 7400	CERAMIC	1U Z	16V
C1613	403 067 9304	CERAMIC	0.01U K	25V
C1614	403 067 9304	CERAMIC	0.01U K	25V
C1615	403 134 7400	CERAMIC	1U Z	16V
C1616	403 149 7303	CERAMIC	0.47U Z	16V
C1617	403 149 7303	CERAMIC	0.47U Z	16V
C1618	403 067 9304	CERAMIC	0.01U K	25V
C1619	403 031 2201	CERAMIC	680P J	50V
C1621	403 134 7400	CERAMIC	1U Z	16V
C1622	403 067 9304	CERAMIC	0.01U K	25V
C1625	403 008 7406	CERAMIC	10P D	50V
C1626	403 067 9304	CERAMIC	0.01U K	25V
C1628	403 067 9304	CERAMIC	0.01U K	25V
C1901	403 067 9304	CERAMIC	0.01U K	25V
C1902	403 068 0409	CERAMIC	0.1U Z	25V
C1903	403 090 7308	TA-SOLID	4.7U M	10V
C1904	403 067 9304	CERAMIC	0.01U K	25V
C1905	403 068 0409	CERAMIC	0.1U Z	25V
C1906	403 067 9304	CERAMIC	0.01U K	25V
C1907	403 090 7308	TA-SOLID	4.7U M	10V
C1908	403 068 0409	CERAMIC	0.1U Z	25V
C1909	403 090 7308	TA-SOLID	4.7U M	10V
C1910	403 068 0409	CERAMIC	0.1U Z	25V
C1911	403 068 5107	CERAMIC	0.047U Z	25V
C1913	403 067 9304	CERAMIC	0.01U K	25V
C1914	403 023 4404	CERAMIC	330P J	50V
C1916	403 090 7308	TA-SOLID	4.7U M	10V
C1917	403 068 0409	CERAMIC	0.1U Z	25V
C1918	403 068 0409	CERAMIC	0.1U Z	25V
C1919	403 067 9304	CERAMIC	0.01U K	25V
C1920	403 068 0409	CERAMIC	0.1U Z	25V
C1921	403 068 0409	CERAMIC	0.1U Z	25V
C1922	403 114 5600	TA-SOLID	3.3U M	6.3V
C1923	403 114 5600	TA-SOLID	3.3U M	6.3V
C1924	403 068 0409	CERAMIC	0.1U Z	25V
C1925	403 068 0409	CERAMIC	0.1U Z	25V
C1926	403 067 9304	CERAMIC	0.01U K	25V
C1927	403 068 0409	CERAMIC	0.1U Z	25V
C1928	403 068 0409	CERAMIC	0.1U Z	25V
C1929	403 067 9304	CERAMIC	0.01U K	25V
C1930	403 090 7308	TA-SOLID	4.7U M	10V
C1933	403 026 2803	CERAMIC	47P J	50V
C1934	403 018 7403	CERAMIC	220P J	50V
C1935	403 067 9304	CERAMIC	0.01U K	25V
C1936	403 068 0409	CERAMIC	0.1U Z	25V
C1971	403 073 9107	CERAMIC	4700P K	50V
C1981	403 067 9304	CERAMIC	0.01U K	25V
C1982	403 011 4904	CERAMIC	120P J	50V
C1983	403 028 4102	CERAMIC	56P J	50V
C1984	403 068 0409	CERAMIC	0.1U Z	25V
C1985	403 067 9304	CERAMIC	0.01U K	25V
C1999	403 022 8205	CERAMIC	33P J	50V
D1001	407 004 0706	DIODE DCB015		
D1002	407 004 8009	DIODE DSB015		
D1003	407 004 0706	DIODE DCB015		
D1004	407 057 8902	ZENER DIODE RD8.2MB2		
OR	407 129 0605	ZENER DIODE MA3082-M-TW		
D1006	407 004 8009	DIODE DSB015		
D1091	407 004 0706	DIODE DCB015		
D1201	407 004 8009	DIODE DSB015		
D1202	407 004 8009	DIODE DSB015		

LOCATION	PARTS NO.	DESCRIPTION
D1203	407 004 0201	DIODE DCA015
D1204	407 004 8009	DIODE DSB015
D1301	407 012 7605	DIODE 1SS226-TE85L
D1302	407 004 8009	DIODE DSB015
D1303	407 004 0201	DIODE DCA015
D1511	407 004 8009	DIODE DSB015
D1601	407 004 0706	DIODE DCB015
D1602	407 004 8009	DIODE DSB015
D1603	407 004 0706	DIODE DCB015
F1082 ⚠	423 000 0700	FUSE,3.15A
F1083 ⚠	636 000 0353	CIRCUIT PROTECTOR
IC101	409 143 7608	IC CXA1201Q
IC102	409 183 1000	IC NJM2233BM(T1)
IC111	409 143 8100	IC CXL1502M-T1
IC121	409 169 5701	IC CXA1200BQ
IC151	409 143 7905	IC CXA1203M-T1
IC161	409 149 2904	IC NJM2235M-T1
IC162	409 168 0202	IC NJM2234M-T1
IC191	409 143 7806	IC CXA1202Q-Z
L1001	636 002 8852	RF CHOKE,100 UH
L1002	636 002 8852	RF CHOKE,100 UH
L1003	636 003 2514	HF CHOKE, 82 UH
L1004	636 003 2484	HF CHOKE, 47 UH
L1082	636 003 3924	HF CHOKE,1.0 UH
L1083	636 003 3924	HF CHOKE,1.0 UH
L1101	636 002 8852	RF CHOKE,100 UH
L1102	636 002 8869	RF CHOKE,220 UH
L1103	636 003 5379	CORE
L1104	636 003 5379	CORE
L1201	636 003 2408	HF CHOKE, 10 UH
L1204	636 002 8852	RF CHOKE,100 UH
L1205	636 003 2149	HF CHOKE, 22 UH
L1207	636 002 8852	RF CHOKE,100 UH
L1211	636 003 2514	HF CHOKE, 82 UH
L1212	636 003 2392	HF CHOKE,8.2 UH
L1213	636 002 8845	RF CHOKE, 47 UH
L1214	636 002 8869	RF CHOKE,220 UH
L1261	636 003 2545	HF CHOKE,150 UH
L1262	636 003 2361	HF CHOKE,4.7 UH
L1263	636 003 2460	HF CHOKE, 33 UH
L1301	636 002 8852	RF CHOKE,100 UH
L1302	636 002 8852	RF CHOKE,100 UH
L1303	636 003 3207	HF CHOKE,470 UH
L1304	636 003 3184	HF CHOKE,330 UH
L1305	636 003 3184	HF CHOKE,330 UH
L1306	636 003 2408	HF CHOKE, 10 UH
L1308	636 003 2552	HF CHOKE,180 UH
L1309	636 003 2491	HF CHOKE, 56 UH
L1310	636 003 2521	HF CHOKE,100 UH
L1311	636 003 2545	HF CHOKE,150 UH
L1312	636 003 2392	HF CHOKE,8.2 UH
L1313	636 003 2538	HF CHOKE,120 UH
L1314	636 003 3184	HF CHOKE,330 UH
L1501	636 002 8852	RF CHOKE,100 UH
L1502	636 003 2491	HF CHOKE, 56 UH
L1504	636 003 2491	HF CHOKE, 56 UH
L1561	636 003 2392	HF CHOKE,8.2 UH
L1601	636 002 8852	RF CHOKE,100 UH
L1602	636 003 2507	HF CHOKE, 68 UH
L1603	636 003 2507	HF CHOKE, 68 UH
L1604	636 002 8852	RF CHOKE,100 UH
L1605	636 002 8852	RF CHOKE,100 UH
L1901	636 003 2101	HF CHOKE, 10 UH
L1902	636 003 2101	HF CHOKE, 10 UH
L1903	636 003 2101	HF CHOKE, 10 UH
L1906	636 003 2101	HF CHOKE, 10 UH
L1907	636 003 2149	HF CHOKE, 22 UH
L1981	636 002 8869	RF CHOKE,220 UH
L1982	636 003 2392	HF CHOKE,8.2 UH
Q1001	405 002 6706	TR 2SA1179-M6
Q1002	405 003 7108	TR 2SA1341
Q1003	405 002 6706	TR 2SA1179-M6
Q1004	405 018 2204	TR 2SC3397
Q1005	405 018 1900	TR 2SC3395
Q1006	405 008 7509	TR 2SB815-B6
Q1007	405 018 1900	TR 2SC3395
Q1008	405 008 7509	TR 2SB815-B6
Q1009	405 015 8704	TR 2SC2812-L6
Q1010	405 002 6706	TR 2SA1179-M6
Q1011	405 008 7509	TR 2SB815-B6
Q1012	405 018 1900	TR 2SC3395
Q1013	405 018 2204	TR 2SC3397
Q1014	405 018 2204	TR 2SC3397
Q1081	405 008 7509	TR 2SB815-B6
Q1082	405 018 1900	TR 2SC3395
Q1101	405 015 8704	TR 2SC2812-L6
Q1102	405 018 1900	TR 2SC3395
Q1103	405 015 8704	TR 2SC2812-L6
Q1201	405 060 7202	TR FMA2-T99
Q1202	405 015 8704	TR 2SC2812-L6
Q1203	405 003 7108	TR 2SA1341
Q1204	405 002 6706	TR 2SA1179-M6
Q1205	405 002 4108	TR 2SA1122-D-TL
Q1206	405 002 6706	TR 2SA1179-M6
Q1207	405 018 2204	TR 2SC3397
Q1208	405 002 6706	TR 2SA1179-M6
Q1209	405 003 7108	TR 2SA1341
Q1210	405 015 8704	TR 2SC2812-L6
Q1211	405 002 6706	TR 2SA1179-M6
Q1212	405 060 7509	TR FMG2-T99
Q1214	405 018 1900	TR 2SC3395
Q1215	405 018 1900	TR 2SC3395
Q1216	405 002 6706	TR 2SA1179-M6
Q1282	405 074 0701	TR IMX2-109
Q1301	405 002 6706	TR 2SA1179-M6
Q1303	405 015 8704	TR 2SC2812-L6
Q1305	405 015 8704	TR 2SC2812-L6
Q1308	405 015 8704	TR 2SC2812-L6
Q1309	405 015 8704	TR 2SC2812-L6
Q1310	405 002 6706	TR 2SA1179-M6
Q1311	405 015 8704	TR 2SC2812-L6
Q1312	405 015 8704	TR 2SC2812-L6
Q1313	405 015 8704	TR 2SC2812-L6
Q1314	405 002 6706	TR 2SA1179-M6
Q1315	405 002 6706	TR 2SA1179-M6
Q1316	405 015 8704	TR 2SC2812-L6
Q1381	405 018 2204	TR 2SC3397
Q1501	405 015 8704	TR 2SC2812-L6
Q1502	405 015 8704	TR 2SC2812-L6
Q1503	405 015 8704	TR 2SC2812-L6
Q1511	405 015 8704	TR 2SC2812-L6
Q1512	405 018 1900	TR 2SC3395
Q1514	405 015 8704	TR 2SC2812-L6
Q1515	405 002 6706	TR 2SA1179-M6
Q1601	405 015 8704	TR 2SC2812-L6
Q1602	405 015 8704	TR 2SC2812-L6
Q1603	405 015 8704	TR 2SC2812-L6
Q1604	405 015 8704	TR 2SC2812-L6
Q1605	405 018 1900	TR 2SC3395
Q1606	405 015 8704	TR 2SC2812-L6
Q1609	405 002 6706	TR 2SA1179-M6
Q1610	405 015 8704	TR 2SC2812-L6
Q1611	405 018 1900	TR 2SC3395
Q1612	405 015 8704	TR 2SC2812-L6

LOCATION	PARTS NO.	DESCRIPTION
Q1613	405 018 1900	TR 2SC3395
Q1614	405 015 8704	TR 2SC2812-L6
Q1615	405 015 8704	TR 2SC2812-L6
Q1616	405 015 8704	TR 2SC2812-L6
Q1901	405 018 2204	TR 2SC3397
Q1903	405 015 8704	TR 2SC2812-L6
Q1904	405 015 8704	TR 2SC2812-L6
Q1905	405 003 7108	TR 2SA1341
Q1972	405 018 1900	TR 2SC3395
Q1981	405 002 6706	TR 2SA1179-M6
Q1982	405 002 6706	TR 2SA1179-M6
R1001	401 038 9209	MT-GLAZE 6.8K JA 1/10W
R1002	401 038 0800	MT-GLAZE 22K JA 1/10W
R1003	401 039 0403	MT-GLAZE 8.2K JA 1/10W
R1004	401 037 8005	MT-GLAZE 15K JA 1/10W
R1005	401 037 5400	MT-GLAZE 1K JA 1/10W
R1006	401 038 8905	MT-GLAZE 68 JA 1/10W
R1007	401 037 6100	MT-GLAZE 1.1K JA 1/10W
R1008	401 037 5400	MT-GLAZE 1K JA 1/10W
R1009	401 037 5608	MT-GLAZE 10K JA 1/10W
R1010	401 037 5707	MT-GLAZE 100K JA 1/10W
R1011	401 038 7700	MT-GLAZE 5.6K JA 1/10W
R1012	401 039 0403	MT-GLAZE 8.2K JA 1/10W
R1013	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R1014	401 038 9001	MT-GLAZE 680 JA 1/10W
R1015	401 037 5400	MT-GLAZE 1K JA 1/10W
R1016	401 038 2200	MT-GLAZE 27K JA 1/10W
R1017	401 038 0800	MT-GLAZE 22K JA 1/10W
R1018	401 038 9001	MT-GLAZE 680 JA 1/10W
R1019	401 038 5102	MT-GLAZE 3.9K JA 1/10W
R1020	401 038 0800	MT-GLAZE 22K JA 1/10W
R1021	401 038 2200	MT-GLAZE 27K JA 1/10W
R1022	401 038 6505	MT-GLAZE 47K JA 1/10W
R1023	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R1024	401 038 6505	MT-GLAZE 47K JA 1/10W
R1025	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R1026	401 038 6505	MT-GLAZE 47K JA 1/10W
R1027	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R1028	401 037 6704	MT-GLAZE 1.2K JA 1/10W
R1029	401 037 6704	MT-GLAZE 1.2K JA 1/10W
R1031	401 038 6307	MT-GLAZE 470 JA 1/10W
R1034	401 037 5608	MT-GLAZE 10K JA 1/10W
R1035	401 037 6803	MT-GLAZE 12K JA 1/10W
R1036	401 038 1302	MT-GLAZE 2.4K JA 1/10W
R1037	401 037 5608	MT-GLAZE 10K JA 1/10W
R1038	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R1039	401 038 9001	MT-GLAZE 680 JA 1/10W
R1040	401 038 9001	MT-GLAZE 680 JA 1/10W
R1041	401 037 6704	MT-GLAZE 1.2K JA 1/10W
R1042	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R1081	401 037 5608	MT-GLAZE 10K JA 1/10W
R1082	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R1083	401 037 5004	MT-GLAZE 0 ZA 1/10W
R1101	401 037 5806	MT-GLAZE 1M JA 1/10W
R1103	401 037 5400	MT-GLAZE 1K JA 1/10W
R1108	401 037 7909	MT-GLAZE 1.5K JA 1/10W
R1109	401 037 8005	MT-GLAZE 15K JA 1/10W
R1110	401 037 5608	MT-GLAZE 10K JA 1/10W
R1111	401 037 5400	MT-GLAZE 1K JA 1/10W
R1112	401 039 0304	MT-GLAZE 820 JA 1/10W
R1161	401 037 5004	MT-GLAZE 0 ZA 1/10W
R1162	401 038 3504	MT-GLAZE 330 JA 1/10W
R1163	401 037 5202	MT-GLAZE 100 JA 1/10W
R1170	401 037 5806	MT-GLAZE 1M JA 1/10W
R1171	401 037 5806	MT-GLAZE 1M JA 1/10W
R1172	401 037 5004	MT-GLAZE 0 ZA 1/10W
R1174	401 037 5004	MT-GLAZE 0 ZA 1/10W
R1176	401 037 5004	MT-GLAZE 0 ZA 1/10W

LOCATION	PARTS NO.	DESCRIPTION
R1177	401 037 5004	MT-GLAZE 0 ZA 1/10W
R1178	401 037 5004	MT-GLAZE 0 ZA 1/10W
R1179	401 037 5806	MT-GLAZE 1M JA 1/10W
R1180	401 037 5202	MT-GLAZE 100 JA 1/10W
R1181	401 037 6704	MT-GLAZE 1.2K JA 1/10W
R1182	401 037 5004	MT-GLAZE 0 ZA 1/10W
R1201	401 037 5400	MT-GLAZE 1K JA 1/10W
R1202	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R1203	401 037 7008	MT-GLAZE 1.2M JA 1/10W
R1204	401 038 7809	MT-GLAZE 56K JA 1/10W
R1205	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R1206	401 038 0800	MT-GLAZE 22K JA 1/10W
R1207	401 037 8005	MT-GLAZE 15K JA 1/10W
R1208	401 038 1401	MT-GLAZE 24K JA 1/10W
R1209	401 037 5608	MT-GLAZE 10K JA 1/10W
R1210	401 038 5300	MT-GLAZE 39K JA 1/10W
R1212	401 037 5400	MT-GLAZE 1K JA 1/10W
R1213	401 038 6307	MT-GLAZE 470 JA 1/10W
R1214	401 037 5400	MT-GLAZE 1K JA 1/10W
R1215	401 039 0403	MT-GLAZE 8.2K JA 1/10W
R1216	401 039 0304	MT-GLAZE 820 JA 1/10W
R1217	401 038 0503	MT-GLAZE 22 JA 1/10W
R1219	401 038 3504	MT-GLAZE 330 JA 1/10W
R1220	401 038 9001	MT-GLAZE 680 JA 1/10W
R1221	401 038 6307	MT-GLAZE 470 JA 1/10W
R1222	401 037 5400	MT-GLAZE 1K JA 1/10W
R1223	401 038 9001	MT-GLAZE 680 JA 1/10W
R1225	401 037 7909	MT-GLAZE 1.5K JA 1/10W
R1227	401 038 2101	MT-GLAZE 2.7K JA 1/10W
R1228	401 037 5400	MT-GLAZE 1K JA 1/10W
R1229	401 037 6803	MT-GLAZE 12K JA 1/10W
R1231	401 038 5003	MT-GLAZE 390 JA 1/10W
R1232	401 037 5400	MT-GLAZE 1K JA 1/10W
R1233	401 037 5608	MT-GLAZE 10K JA 1/10W
R1235	401 038 0800	MT-GLAZE 22K JA 1/10W
R1236	401 038 3702	MT-GLAZE 33K JA 1/10W
R1237	401 038 6109	MT-GLAZE 430K JA 1/10W
R1238	401 037 7305	MT-GLAZE 1.3K JA 1/10W
R1239	401 038 2101	MT-GLAZE 2.7K JA 1/10W
R1240	401 038 9001	MT-GLAZE 680 JA 1/10W
R1241	401 038 9001	MT-GLAZE 680 JA 1/10W
R1242	401 037 5202	MT-GLAZE 100 JA 1/10W
R1243	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R1246	401 037 9309	MT-GLAZE 18K JA 1/10W
R1247	401 038 7809	MT-GLAZE 56K JA 1/10W
R1248	401 038 0206	MT-GLAZE 20K JA 1/10W
R1249	401 038 0800	MT-GLAZE 22K JA 1/10W
R1250	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R1261	401 037 5004	MT-GLAZE 0 ZA 1/10W
R1281	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R1282	401 038 3702	MT-GLAZE 33K JA 1/10W
R1283	401 038 0800	MT-GLAZE 22K JA 1/10W
R1284	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R1285	401 038 0800	MT-GLAZE 22K JA 1/10W
R1298	401 037 5004	MT-GLAZE 0 ZA 1/10W
R1299	401 037 5004	MT-GLAZE 0 ZA 1/10W
R1301	401 037 5400	MT-GLAZE 1K JA 1/10W
R1302	401 038 9001	MT-GLAZE 680 JA 1/10W
R1303	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R1306	401 037 5400	MT-GLAZE 1K JA 1/10W
R1307	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R1308	401 038 3504	MT-GLAZE 330 JA 1/10W
R1312	401 038 0602	MT-GLAZE 220 JA 1/10W
R1313	401 037 9200	MT-GLAZE 1.8K JA 1/10W
R1316	401 037 6704	MT-GLAZE 1.2K JA 1/10W
R1323	401 038 7601	MT-GLAZE 560 JA 1/10W
R1325	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R1326	401 039 0304	MT-GLAZE 820 JA 1/10W
R1327	401 037 6803	MT-GLAZE 12K JA 1/10W

LOCATION	PARTS NO.	DESCRIPTION	
R1328	401 037 5608	MT-GLAZE	10K JA 1/10W
R1333	401 038 6307	MT-GLAZE	470 JA 1/10W
R1334	401 038 8905	MT-GLAZE	68 JA 1/10W
R1335	401 039 0403	MT-GLAZE	8.2K JA 1/10W
R1336	401 037 9200	MT-GLAZE	1.8K JA 1/10W
R1337	401 037 7909	MT-GLAZE	1.5K JA 1/10W
R1338	401 037 9309	MT-GLAZE	18K JA 1/10W
R1339	401 038 7601	MT-GLAZE	560 JA 1/10W
R1340	401 037 9309	MT-GLAZE	18K JA 1/10W
R1341	401 037 5400	MT-GLAZE	1K JA 1/10W
R1342	401 038 6406	MT-GLAZE	4.7K JA 1/10W
R1343	401 038 9001	MT-GLAZE	680 JA 1/10W
R1344	401 038 2101	MT-GLAZE	2.7K JA 1/10W
R1345	401 037 6803	MT-GLAZE	12K JA 1/10W
R1346	401 038 6505	MT-GLAZE	47K JA 1/10W
R1348	401 038 6307	MT-GLAZE	470 JA 1/10W
R1349	401 037 5202	MT-GLAZE	100 JA 1/10W
R1350	401 038 9001	MT-GLAZE	680 JA 1/10W
R1351	401 038 9001	MT-GLAZE	680 JA 1/10W
R1352	401 038 1401	MT-GLAZE	24K JA 1/10W
R1353	401 038 0800	MT-GLAZE	22K JA 1/10W
R1354	401 037 6704	MT-GLAZE	1.2K JA 1/10W
R1355	401 038 2101	MT-GLAZE	2.7K JA 1/10W
R1356	401 038 7601	MT-GLAZE	560 JA 1/10W
R1357	401 038 7601	MT-GLAZE	560 JA 1/10W
R1358	401 038 3603	MT-GLAZE	3.3K JA 1/10W
R1359	401 038 3603	MT-GLAZE	3.3K JA 1/10W
R1360	401 038 6406	MT-GLAZE	4.7K JA 1/10W
R1361	401 038 3603	MT-GLAZE	3.3K JA 1/10W
R1362	401 038 3603	MT-GLAZE	3.3K JA 1/10W
R1363	401 039 0403	MT-GLAZE	8.2K JA 1/10W
R1364	401 038 9209	MT-GLAZE	6.8K JA 1/10W
R1372	401 037 9309	MT-GLAZE	18K JA 1/10W
R1373	401 037 6803	MT-GLAZE	12K JA 1/10W
R1391	401 038 2002	MT-GLAZE	270 JA 1/10W
R1392	401 038 0701	MT-GLAZE	2.2K JA 1/10W
R1393	401 038 3504	MT-GLAZE	330 JA 1/10W
R1394	401 038 5003	MT-GLAZE	390 JA 1/10W
R1395	401 038 9001	MT-GLAZE	680 JA 1/10W
R1396	401 037 5004	MT-GLAZE	0 ZA 1/10W
R1397	401 037 5004	MT-GLAZE	0 ZA 1/10W
R1501	401 038 3603	MT-GLAZE	3.3K JA 1/10W
R1502	401 037 7909	MT-GLAZE	1.5K JA 1/10W
R1503	401 038 0701	MT-GLAZE	2.2K JA 1/10W
R1504	401 037 7305	MT-GLAZE	1.3K JA 1/10W
R1505	401 037 6704	MT-GLAZE	1.2K JA 1/10W
R1506	401 037 5608	MT-GLAZE	10K JA 1/10W
R1507	401 038 6505	MT-GLAZE	47K JA 1/10W
R1511	401 038 6307	MT-GLAZE	470 JA 1/10W
R1512	401 037 5004	MT-GLAZE	0 ZA 1/10W
R1513	401 142 6507	MT-GLAZE	10M KA 1/10W
R1514	401 039 0403	MT-GLAZE	8.2K JA 1/10W
R1515	401 037 5400	MT-GLAZE	1K JA 1/10W
R1516	401 037 5707	MT-GLAZE	100K JA 1/10W
R1517	401 038 0800	MT-GLAZE	22K JA 1/10W
R1518	401 038 6307	MT-GLAZE	470 JA 1/10W
R1519	401 037 5400	MT-GLAZE	1K JA 1/10W
R1520	401 037 5400	MT-GLAZE	1K JA 1/10W
R1521	401 037 5707	MT-GLAZE	100K JA 1/10W
R1522	401 038 0800	MT-GLAZE	22K JA 1/10W
R1523	401 038 3702	MT-GLAZE	33K JA 1/10W
R1524	401 038 6505	MT-GLAZE	47K JA 1/10W
R1525	401 038 0800	MT-GLAZE	22K JA 1/10W
R1526	401 038 9001	MT-GLAZE	680 JA 1/10W
R1527	401 038 7700	MT-GLAZE	5.6K JA 1/10W
R1528	401 038 6505	MT-GLAZE	47K JA 1/10W
R1529	401 038 6505	MT-GLAZE	47K JA 1/10W
R1530	401 037 6803	MT-GLAZE	12K JA 1/10W
R1531	401 038 6406	MT-GLAZE	4.7K JA 1/10W
R1532	401 038 6505	MT-GLAZE	47K JA 1/10W
R1533	401 038 6505	MT-GLAZE	47K JA 1/10W
R1535	401 037 5608	MT-GLAZE	10K JA 1/10W
R1536	401 037 5004	MT-GLAZE	0 ZA 1/10W
R1601	401 037 8005	MT-GLAZE	15K JA 1/10W
R1602	401 037 5608	MT-GLAZE	10K JA 1/10W
R1603	401 037 5400	MT-GLAZE	1K JA 1/10W
R1604	401 037 5400	MT-GLAZE	1K JA 1/10W
R1605	401 037 6704	MT-GLAZE	1.2K JA 1/10W
R1606	401 037 5400	MT-GLAZE	1K JA 1/10W
R1607	401 037 6704	MT-GLAZE	1.2K JA 1/10W
R1608	401 037 5400	MT-GLAZE	1K JA 1/10W
R1609	401 037 5400	MT-GLAZE	1K JA 1/10W
R1610	401 037 8005	MT-GLAZE	15K JA 1/10W
R1611	401 037 5608	MT-GLAZE	10K JA 1/10W
R1612	401 039 0304	MT-GLAZE	820 JA 1/10W
R1613	401 038 6307	MT-GLAZE	470 JA 1/10W
R1614	401 037 5004	MT-GLAZE	0 ZA 1/10W
R1615	401 037 5400	MT-GLAZE	1K JA 1/10W
R1617	401 039 0304	MT-GLAZE	820 JA 1/10W
R1619	401 037 5004	MT-GLAZE	0 ZA 1/10W
R1623	401 037 6704	MT-GLAZE	1.2K JA 1/10W
R1624	401 037 6100	MT-GLAZE	1.1K JA 1/10W
R1625	401 037 5004	MT-GLAZE	0 ZA 1/10W
R1626	401 038 6505	MT-GLAZE	47K JA 1/10W
R1627	401 038 0800	MT-GLAZE	22K JA 1/10W
R1628	401 039 0403	MT-GLAZE	8.2K JA 1/10W
R1629	401 038 7700	MT-GLAZE	5.6K JA 1/10W
R1630	401 037 5400	MT-GLAZE	1K JA 1/10W
R1631	401 038 2002	MT-GLAZE	270 JA 1/10W
R1632	401 037 5608	MT-GLAZE	10K JA 1/10W
R1633	401 037 5608	MT-GLAZE	10K JA 1/10W
R1634	401 037 5608	MT-GLAZE	10K JA 1/10W
R1635	401 039 0601	MT-GLAZE	820K JA 1/10W
R1636	401 039 0601	MT-GLAZE	820K JA 1/10W
R1637	401 037 5400	MT-GLAZE	1K JA 1/10W
R1638	401 037 6704	MT-GLAZE	1.2K JA 1/10W
R1641	401 038 3009	MT-GLAZE	3K JA 1/10W
R1642	401 038 9209	MT-GLAZE	6.8K JA 1/10W
R1643	401 038 9209	MT-GLAZE	6.8K JA 1/10W
R1644	401 038 3702	MT-GLAZE	33K JA 1/10W
R1645	401 038 0800	MT-GLAZE	22K JA 1/10W
R1646	401 038 3603	MT-GLAZE	3.3K JA 1/10W
R1651	401 037 5608	MT-GLAZE	10K JA 1/10W
R1652	401 038 7700	MT-GLAZE	5.6K JA 1/10W
R1653	401 037 9200	MT-GLAZE	1.8K JA 1/10W
R1654	401 038 0701	MT-GLAZE	2.2K JA 1/10W
R1656	401 038 0909	MT-GLAZE	220K JA 1/10W
R1657	401 037 5400	MT-GLAZE	1K JA 1/10W
R1658	401 037 8005	MT-GLAZE	15K JA 1/10W
R1659	401 037 5608	MT-GLAZE	10K JA 1/10W
R1902	401 037 8104	MT-GLAZE	150K JA 1/10W
R1903	401 037 5707	MT-GLAZE	100K JA 1/10W
R1904	401 038 0800	MT-GLAZE	22K JA 1/10W
R1905	401 037 7909	MT-GLAZE	1.5K JA 1/10W
R1906	401 038 6505	MT-GLAZE	47K JA 1/10W
R1907	401 038 1401	MT-GLAZE	24K JA 1/10W
R1908	401 038 3702	MT-GLAZE	33K JA 1/10W
R1909	401 038 6505	MT-GLAZE	47K JA 1/10W
R1910	401 037 7909	MT-GLAZE	1.5K JA 1/10W
R1911	401 038 0800	MT-GLAZE	22K JA 1/10W
R1913	401 038 2200	MT-GLAZE	27K JA 1/10W
R1915	401 038 3603	MT-GLAZE	3.3K JA 1/10W
R1916	401 038 3603	MT-GLAZE	3.3K JA 1/10W
R1917	401 038 3603	MT-GLAZE	3.3K JA 1/10W
R1918	401 038 3603	MT-GLAZE	3.3K JA 1/10W
R1919	401 038 3603	MT-GLAZE	3.3K JA 1/10W
R1921	401 039 0403	MT-GLAZE	8.2K JA 1/10W
R1922	401 038 5300	MT-GLAZE	39K JA 1/10W

LOCATION	PARTS NO.	DESCRIPTION
R1923	401 039 0403	MT-GLAZE 8.2K JA 1/10W
R1924	401 038 5300	MT-GLAZE 39K JA 1/10W
R1929	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R1930	401 037 7909	MT-GLAZE 1.5K JA 1/10W
R1931	401 037 5202	MT-GLAZE 100 JA 1/10W
R1933	401 037 6704	MT-GLAZE 1.2K JA 1/10W
R1934	401 037 5400	MT-GLAZE 1K JA 1/10W
R1935	401 037 9200	MT-GLAZE 1.8K JA 1/10W
R1936	401 037 5707	MT-GLAZE 100K JA 1/10W
R1961	401 037 5004	MT-GLAZE 0 ZA 1/10W
R1967	401 037 5004	MT-GLAZE 0 ZA 1/10W
R1968	401 037 8104	MT-GLAZE 150K JA 1/10W
R1969	401 037 5004	MT-GLAZE 0 ZA 1/10W
R1972	401 037 8104	MT-GLAZE 150K JA 1/10W
R1981	401 038 2200	MT-GLAZE 27K JA 1/10W
R1982	401 038 0800	MT-GLAZE 22K JA 1/10W
R1983	401 038 6307	MT-GLAZE 470 JA 1/10W
R1984	401 038 3504	MT-GLAZE 330 JA 1/10W
R1985	401 038 5508	MT-GLAZE 4.7 JA 1/10W
R1986	401 038 7700	MT-GLAZE 5.6K JA 1/10W
R1999	401 038 9001	MT-GLAZE 680 JA 1/10W
T1201	636 026 1938	FILTER
VR101	636 019 8074	SVR 47K OHM
VR121	636 019 7909	SVR 10K OHM
VR122	636 019 8067	SVR 4.7K OHM
VR123	636 019 8067	SVR 4.7K OHM
VR124	636 019 7985	SVR 2.2K OHM
VR125	636 019 7985	SVR 2.2K OHM
VR126	636 019 8074	SVR 47K OHM
VR131	636 019 8029	SVR 3.3K OHM
VR133	636 019 8067	SVR 4.7K OHM
VR151	636 019 8067	SVR 4.7K OHM
VR152	636 019 7992	SVR 22K OHM
VR161	636 019 7985	SVR 2.2K OHM
VR162	636 019 7985	SVR 2.2K OHM
X1201	636 019 4977	CRYSTAL 4.433619MHZ
OR	636 028 4340	CRYSTAL 4.433619MHZ
X1202	636 019 4946	FILTER

COMPL.VD-2

COMPL.NO. 636 026 1167

LOCATION	PARTS NO.	DESCRIPTION
C2001	403 153 0901	ELECT 100U M 6.3V
C2002	403 153 1205	ELECT 47U M 16V
C2003	403 155 1807	CERAMIC 0.01U K 25V
C2004	403 114 5600	TA-SOLID 3.3U M 6.3V
C2005	403 113 3805	CERAMIC 1000P K 50V
C2008	403 089 4806	TA-SOLID 10U M 4V
C2009	403 175 7001	TA-SOLID 100U M 4V
C2010	403 158 8209	TA-SOLID 15U M 4V
C2011	403 153 0901	ELECT 100U M 6.3V
C2012	403 162 3900	ELECT 47U M 4V
C2015	403 067 9809	CERAMIC 0.1U K 25V
C2016	403 176 0209	CERAMIC 0.1U Z 25V
C2017	403 067 9809	CERAMIC 0.1U K 25V
C2019	403 105 9501	CERAMIC 1000P J 50V
C2026	403 026 7501	CERAMIC 470P J 50V
CN851	636 024 9813	SOCKET.AV OUT
D2001	407 057 8902	ZENER DIODE RD8.2MB2
D2002	407 057 8902	ZENER DIODE RD8.2MB2
D2005	407 004 1000	DIODE DCC010
D2006	407 106 1502	DIODE DCF015-TL
D2301	407 054 5508	ZENER DIODE RD13MB1
D2302	407 057 8902	ZENER DIODE RD8.2MB2
D2303	407 057 8902	ZENER DIODE RD8.2MB2
IC205	409 183 7101	IC 880429
Q2001	405 079 6104	TR 2SC4399-3-TL
Q2002	405 077 3402	TR 2SC4211-6-TL
Q2003	405 077 3402	TR 2SC4211-6-TL
Q2004	405 077 2207	TR 2SA1622-6-TL
Q2006	405 077 3402	TR 2SC4211-6-TL
Q2007	405 077 3402	TR 2SC4211-6-TL
Q2009	405 077 3402	TR 2SC4211-6-TL
Q2103	405 077 3402	TR 2SC4211-6-TL
R2004	401 105 0504	MT-GLAZE 1K JA 1/16W
R2005	401 105 0504	MT-GLAZE 1K JA 1/16W
R2006	401 105 0603	MT-GLAZE 10K JA 1/16W
R2007	401 105 0504	MT-GLAZE 1K JA 1/16W
R2008	401 105 7909	MT-GLAZE 0 ZA 1/16W
R2009	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R2010	401 105 0603	MT-GLAZE 10K JA 1/16W
R2011	401 105 3406	MT-GLAZE 27K JA 1/16W
R2012	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R2014	401 105 5202	MT-GLAZE 470 JA 1/16W
R2015	401 105 7305	MT-GLAZE 820 JA 1/16W
R2016	401 105 1303	MT-GLAZE 15 JA 1/16W
R2017	401 105 1303	MT-GLAZE 15 JA 1/16W
R2018	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R2019	401 105 0603	MT-GLAZE 10K JA 1/16W
R2020	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R2021	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R2022	401 105 0504	MT-GLAZE 1K JA 1/16W
R2023	401 105 1600	MT-GLAZE 15K JA 1/16W
R2024	401 105 4205	MT-GLAZE 33K JA 1/16W
R2025	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R2026	401 105 0504	MT-GLAZE 1K JA 1/16W
R2027	401 105 0603	MT-GLAZE 10K JA 1/16W
R2028	401 105 7909	MT-GLAZE 0 ZA 1/16W
R2045	401 105 2607	MT-GLAZE 22 JA 1/16W
R2060	401 105 7909	MT-GLAZE 0 ZA 1/16W
R2111	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R2302	401 105 7909	MT-GLAZE 0 ZA 1/16W
T2001	636 026 8739	FILTER.1.5MHZ

COMPL.DM-1

COMPL.NO. 636 026 1143

LOCATION	PARTS NO.	DESCRIPTION
C2801	403 162 3900	ELECT 47U M 4V
C2802	403 113 3805	CERAMIC 1000P K 50V
CN204	636 024 2265	SOCKET.EARPHONE
D1711	407 106 1502	DIODE DCF015-TL
D1712	407 106 1502	DIODE DCF015-TL
D2803	407 057 8902	ZENER DIODE RD8.2MB2
OR	407 129 0605	ZENER DIODE MA3082-M-TW
D2804	407 057 8902	ZENER DIODE RD8.2MB2
OR	407 129 0605	ZENER DIODE MA3082-M-TW
L2801	636 003 5379	CORE
L2802	636 003 5379	CORE
R2801	401 105 0603	MT-GLAZE 10K JA 1/16W
S1712	636 025 2950	SW.PUSH
S1713	636 025 2950	SW.PUSH
S1714	636 025 2950	SW.PUSH

COMPL.DM-2

LOCATION	PARTS NO.	DESCRIPTION
COMPL.NO.	636 026 1150	
	636 023 5687	SHIEL PLATE.SIDE A
	636 023 5694	SHIEL PLATE.SIDE B
C1701	403 090 2006	TA-SOLID 6.8U M 6.3V
C1702	403 155 1807	CERAMIC 0.01U K 25V
C1706	403 155 1807	CERAMIC 0.01U K 25V
C1707	403 113 3805	CERAMIC 1000P K 50V
C1708	403 139 7306	CERAMIC 18P J 50V
C1710	403 113 3805	CERAMIC 1000P K 50V
C1711	403 067 9809	CERAMIC 0.1U K 25V
C1712	403 090 2006	TA-SOLID 6.8U M 6.3V
C1801	403 153 0901	ELECT 100U M 6.3V
C1802	403 155 1807	CERAMIC 0.01U K 25V
C1803	403 155 1302	CERAMIC 150P J 50V
C1804	403 155 1302	CERAMIC 150P J 50V
C1805	403 157 4202	CERAMIC 220P J 50V
C1806	403 153 9300	CERAMIC 82P J 50V
C1807	403 155 1302	CERAMIC 150P J 50V
C1808	403 155 1302	CERAMIC 150P J 50V
C1809	403 157 4202	CERAMIC 220P J 50V
C1811	403 153 9300	CERAMIC 82P J 50V
C1812	403 114 5600	TA-SOLID 3.3U M 6.3V
C1813	403 155 1807	CERAMIC 0.01U K 25V
C1814	403 155 1807	CERAMIC 0.01U K 25V
C1815	403 155 1807	CERAMIC 0.01U K 25V
C1817	403 155 1807	CERAMIC 0.01U K 25V
C1818	403 155 1807	CERAMIC 0.01U K 25V
C1821	403 155 1807	CERAMIC 0.01U K 25V
C1822	403 155 1807	CERAMIC 0.01U K 25V
C1823	403 155 1807	CERAMIC 0.01U K 25V
C1824	403 155 1807	CERAMIC 0.01U K 25V
C1825	403 155 1807	CERAMIC 0.01U K 25V
C1826	403 157 1904	CERAMIC 10P D 50V
C1827	403 155 1807	CERAMIC 0.01U K 25V
C1828	403 157 1904	CERAMIC 10P D 50V
C1829	403 155 1807	CERAMIC 0.01U K 25V
C1831	403 155 1807	CERAMIC 0.01U K 25V
C1832	403 090 2006	TA-SOLID 6.8U M 6.3V
C1833	403 155 1807	CERAMIC 0.01U K 25V
C1834	403 114 5600	TA-SOLID 3.3U M 6.3V
C1836	403 153 9300	CERAMIC 82P J 50V
C1837	403 157 4202	CERAMIC 220P J 50V
C1838	403 139 7108	CERAMIC 12P J 50V
C1839	403 176 3200	CERAMIC 1U Z 25V
C1841	403 114 5600	TA-SOLID 3.3U M 6.3V
C1842	403 090 2006	TA-SOLID 6.8U M 6.3V
C1843	403 155 1807	CERAMIC 0.01U K 25V
C1844	403 153 0901	ELECT 100U M 6.3V
C1845	403 155 1807	CERAMIC 0.01U K 25V
C1846	403 162 3900	ELECT 47U M 4V
D1701	407 099 2906	VARACTOR DI 1SV200-11TLC
D1702	407 113 5609	DIODE DSH015-TL
IC171	409 179 5708	IC LC92018B-308
IC174	409 146 4703	IC LC3564PML-15
OR	409 137 0608	IC LC3564PML-12
OR	410 048 4005	IC HM6264ALFP15
IC181	409 144 2503	IC AN2020S-(T1)
IC182	409 183 1000	IC NJM2233BM(T1)
IC183	409 167 7202	IC NJM2406F-TE1
IC184	409 020 7301	IC LC4013BM-T1
IC185	409 152 5404	IC TC7S08F(TE85L)
OR	409 181 4300	IC SC7S08FEL
IC186	409 086 6904	IC LC74HC00M-T1
IC187	409 144 2602	IC UPC311G2-T1

LOCATION	PARTS NO.	DESCRIPTION
L1701	636 003 2149	HF CHOKE. 22 UH
L1703	636 003 2194	HF CHOKE. 56 UH
L1704	636 003 2149	HF CHOKE. 22 UH
L1801	636 003 2200	HF CHOKE. 68 UH
L1802	636 002 8869	RF CHOKE.220 UH
L1803	636 003 2149	HF CHOKE. 22 UH
L1804	636 002 8869	RF CHOKE.220 UH
L1805	636 003 2149	HF CHOKE. 22 UH
L1806	636 003 2149	HF CHOKE. 22 UH
Q1801	405 082 9000	TR IMZ2-T99
Q1802	405 074 0701	TR IMX2-109
Q1804	405 082 9000	TR IMZ2-T99
Q1805	405 074 0701	TR IMX2-109
Q1807	405 077 3402	TR 2SC4211-6-TL
Q1808	405 077 3402	TR 2SC4211-6-TL
Q1809	405 077 3402	TR 2SC4211-6-TL
Q1811	405 077 2207	TR 2SA1622-6-TL
Q1812	405 077 3402	TR 2SC4211-6-TL
Q1813	405 077 3402	TR 2SC4211-6-TL
Q1814	405 077 3402	TR 2SC4211-6-TL
Q1815	405 077 3402	TR 2SC4211-6-TL
Q1816	405 077 2207	TR 2SA1622-6-TL
Q1817	405 077 3402	TR 2SC4211-6-TL
Q1818	405 078 6709	TR 2SC4396-TL
Q1819	405 008 7707	TR 2SB815-B7
Q1821	405 078 6709	TR 2SC4396-TL
R1703	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1707	401 105 0702	MT-GLAZE 100K JA 1/16W
R1712	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1713	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1714	401 105 0603	MT-GLAZE 10K JA 1/16W
R1715	401 105 0603	MT-GLAZE 10K JA 1/16W
R1717	401 105 0603	MT-GLAZE 10K JA 1/16W
R1719	401 105 8005	MT-GLAZE 1M JA 1/16W
R1720	401 105 0702	MT-GLAZE 100K JA 1/16W
R1721	401 105 0603	MT-GLAZE 10K JA 1/16W
R1722	401 105 0603	MT-GLAZE 10K JA 1/16W
R1723	401 105 0603	MT-GLAZE 10K JA 1/16W
R1724	401 105 0603	MT-GLAZE 10K JA 1/16W
R1726	401 105 0603	MT-GLAZE 10K JA 1/16W
R1727	401 105 0603	MT-GLAZE 10K JA 1/16W
R1731	401 105 0504	MT-GLAZE 1K JA 1/16W
R1732	401 105 7909	MT-GLAZE 0 ZA 1/16W
R1734	401 105 0702	MT-GLAZE 100K JA 1/16W
R1801	401 105 1105	MT-GLAZE 12K JA 1/16W
R1802	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1803	401 105 1105	MT-GLAZE 12K JA 1/16W
R1804	401 105 4700	MT-GLAZE 39K JA 1/16W
R1805	401 105 1600	MT-GLAZE 15K JA 1/16W
R1806	401 105 3406	MT-GLAZE 27K JA 1/16W
R1807	401 113 6208	MT-GLAZE 3.6K JA 1/16W
R1808	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1809	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1810	401 105 4502	MT-GLAZE 390 JA 1/16W
R1811	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R1812	401 113 5607	MT-GLAZE 750 JA 1/16W
R1813	401 105 0504	MT-GLAZE 1K JA 1/16W
R1814	401 105 0504	MT-GLAZE 1K JA 1/16W
R1815	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R1816	401 105 0504	MT-GLAZE 1K JA 1/16W
R1817	401 105 0504	MT-GLAZE 1K JA 1/16W
R1818	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1819	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R1820	401 105 4502	MT-GLAZE 390 JA 1/16W
R1821	401 105 1600	MT-GLAZE 15K JA 1/16W
R1822	401 105 3406	MT-GLAZE 27K JA 1/16W
R1823	401 113 6208	MT-GLAZE 3.6K JA 1/16W

LOCATION	PARTS NO.	DESCRIPTION
R1824	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1825	401 113 5607	MT-GLAZE 750 JA 1/16W
R1826	401 105 0504	MT-GLAZE 1K JA 1/16W
R1827	401 105 0504	MT-GLAZE 1K JA 1/16W
R1828	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R1829	401 105 0504	MT-GLAZE 1K JA 1/16W
R1831	401 105 0504	MT-GLAZE 1K JA 1/16W
R1832	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1833	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R1834	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1835	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R1836	401 105 2102	MT-GLAZE 18K JA 1/16W
R1837	401 105 1600	MT-GLAZE 15K JA 1/16W
R1838	401 113 5805	MT-GLAZE 1.1K JA 1/16W
R1839	401 113 5805	MT-GLAZE 1.1K JA 1/16W
R1841	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1842	401 105 0504	MT-GLAZE 1K JA 1/16W
R1843	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1844	401 105 1600	MT-GLAZE 15K JA 1/16W
R1845	401 105 0603	MT-GLAZE 10K JA 1/16W
R1846	401 105 0504	MT-GLAZE 1K JA 1/16W
R1847	401 105 0504	MT-GLAZE 1K JA 1/16W
R1848	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1849	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1851	401 105 0504	MT-GLAZE 1K JA 1/16W
R1852	401 105 0504	MT-GLAZE 1K JA 1/16W
R1853	401 105 0504	MT-GLAZE 1K JA 1/16W
R1855	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1856	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1857	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1858	401 105 0504	MT-GLAZE 1K JA 1/16W
R1859	401 105 0504	MT-GLAZE 1K JA 1/16W
R1860	401 105 2904	MT-GLAZE 22K JA 1/16W
R1861	401 105 0504	MT-GLAZE 1K JA 1/16W
R1862	401 105 5905	MT-GLAZE 560 JA 1/16W
R1863	401 105 5400	MT-GLAZE 47K JA 1/16W
R1864	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1865	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1866	401 105 5905	MT-GLAZE 560 JA 1/16W
R1867	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R1868	401 105 0504	MT-GLAZE 1K JA 1/16W
R1869	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1870	401 105 2904	MT-GLAZE 22K JA 1/16W
R1871	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R1872	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1873	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1874	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R1875	401 105 1600	MT-GLAZE 15K JA 1/16W
R1876	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1877	401 105 5400	MT-GLAZE 47K JA 1/16W
R1878	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1879	401 105 0603	MT-GLAZE 10K JA 1/16W
R1881	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1882	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
VC171	636 026 4007	CAP.TRIM 20P-W
VR181	636 019 7909	SVR 10K OHM
VR182	636 019 7909	SVR 10K OHM
VR183	636 019 8029	SVR 3.3K OHM
VR184	636 019 7893	SVR 1K OHM

COMPL,AD-1

LOCATION	PARTS NO.	DESCRIPTION
COMPL.NO.	636 030 4017	
C2902	403 140 9603	CERAMIC 0.027U K 25V
C2903	403 117 4501	CERAMIC 0.039U K 25V
C2904	403 092 6606	TA-SOLID 0.22U M 35V
C2905	403 091 0407	TA-SOLID 1U M 16V
C2906	403 114 5600	TA-SOLID 3.3U M 6.3V
C2907	403 157 3601	CERAMIC 100P J 50V
C2908	403 162 3900	ELECT 47U M 4V
C2909	403 153 0901	ELECT 100U M 6.3V
C2910	403 033 9000	CERAMIC 820P J 50V
C2911	403 026 7501	CERAMIC 470P J 50V
C2912	403 026 7501	CERAMIC 470P J 50V
C2913	403 155 1500	CERAMIC 180P J 50V
CN203	636 024 2265	SOCKET.MIC
D2901	407 057 8902	ZENER DIODE RD8.2MB2
D2902	407 057 8902	ZENER DIODE RD8.2MB2
Q2901	405 077 3402	TR 2SC4211-6-TL
Q2902	405 077 3402	TR 2SC4211-6-TL
Q2903	405 077 3402	TR 2SC4211-6-TL
R2901	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R2902	401 105 8104	MT-GLAZE 56K JA 1/16W
R2903	401 105 3406	MT-GLAZE 27K JA 1/16W
R2904	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R2905	401 105 2706	MT-GLAZE 220 JA 1/16W
R2906	401 105 1600	MT-GLAZE 15K JA 1/16W
R2907	401 105 4007	MT-GLAZE 330 JA 1/16W
R2909	401 105 0504	MT-GLAZE 1K JA 1/16W
R2910	401 105 2102	MT-GLAZE 18K JA 1/16W
R2911	401 105 2904	MT-GLAZE 22K JA 1/16W
R2912	401 105 2904	MT-GLAZE 22K JA 1/16W
R2913	401 105 0603	MT-GLAZE 10K JA 1/16W
R2914	401 105 3307	MT-GLAZE 2.7K JA 1/16W

COMPL,SV-1

LOCATION	PARTS NO.	DESCRIPTION
COMPL.NO.	636 026 1112	
	636 023 5601	SHIELD PLATE.SIDE A
	636 023 5618	SHIELD PLATE.SIDE B
	636 025 1380	INSULATOR
C3201	403 009 5708	CERAMIC 100P J 50V
C3202	403 100 9704	CERAMIC 0.1U M 25V
C3203	403 038 5601	ELECT 22U M 6.3V
C3204	403 028 9800	CERAMIC 560P J 50V
C3206	403 100 9704	CERAMIC 0.1U M 25V
C3207	403 073 0005	CERAMIC 3300P K 50V
C3208	403 176 3200	CERAMIC 1U Z 25V
C3209	403 068 2007	CERAMIC 0.022U K 25V
C3210	403 100 9704	CERAMIC 0.1U M 25V
C3211	403 167 4506	TA-SOLID 47U M 10V
C3212	403 022 2609	CERAMIC 30P J 50V
C3213	403 068 2007	CERAMIC 0.022U K 25V
C3214	403 069 1702	CERAMIC 1000P K 50V
C3216	403 069 5601	CERAMIC 0.01U K 50V
C3217	403 069 1702	CERAMIC 1000P K 50V
C3218	403 028 4102	CERAMIC 56P J 50V
C3219	403 028 4102	CERAMIC 56P J 50V
C3501	403 176 3200	CERAMIC 1U Z 25V
C3502	403 109 8302	CERAMIC 0.047U Z 50V
C3504	403 176 3101	CERAMIC 0.22U Z 50V
C3505	403 073 1200	CERAMIC 0.033U K 50V
C3506	403 158 7608	TA-SOLID 4.7U M 6.3V
C3507	403 073 9107	CERAMIC 4700P K 50V
C3508	403 109 8302	CERAMIC 0.047U Z 50V
C3509	403 176 3200	CERAMIC 1U Z 25V
C3510	403 176 3200	CERAMIC 1U Z 25V
C3511	403 018 0503	CERAMIC 22P J 50V
C3512	403 018 0503	CERAMIC 22P J 50V
C3513	403 009 5708	CERAMIC 100P J 50V
C3514	403 009 5708	CERAMIC 100P J 50V

LOCATION	PARTS NO.	DESCRIPTION
C3515	403 009 5708	CERAMIC 100P J 50V
C3516	403 069 1702	CERAMIC 1000P K 50V
C3517	403 069 1702	CERAMIC 1000P K 50V
C3518	403 158 8308	TA-SOLID 10U M 6.3V
C3519	403 158 8308	TA-SOLID 10U M 6.3V
C3520	403 109 8302	CERAMIC 0.047U Z 50V
C3521	403 176 3200	CERAMIC 1U Z 25V
C3522	403 069 1702	CERAMIC 1000P K 50V
C3524	403 100 9704	CERAMIC 0.1U M 25V
C3528	403 091 0407	TA-SOLID 1U M 16V
C3529	403 091 0407	TA-SOLID 1U M 16V
C3533	403 091 0407	TA-SOLID 1U M 16V
C3534	403 139 3605	ELECT 100U M 6.3V
C3535	403 069 5601	CERAMIC 0.01U K 50V
C3537	403 176 3200	CERAMIC 1U Z 25V
C3701	403 105 9105	ELECT 10U M 16V
C3702	403 152 9806	ELECT 10U M 16V
C3703	403 176 3200	CERAMIC 1U Z 25V
C3704	403 104 8802	CERAMIC 0.082U K 25V
C3705	403 176 3002	CERAMIC 0.15U Z 50V
C3708	403 017 0900	CERAMIC 20P J 50V
C3709	403 017 0900	CERAMIC 20P J 50V
C3710	403 100 9704	CERAMIC 0.1U M 25V
C3711	403 152 9806	ELECT 10U M 16V
C3712	403 152 9806	ELECT 10U M 16V
C3713	403 068 2007	CERAMIC 0.022U K 25V
C3714	403 068 2007	CERAMIC 0.022U K 25V
C3715	403 068 2007	CERAMIC 0.022U K 25V
C3716	403 100 9704	CERAMIC 0.1U M 25V
C3717	403 033 9000	CERAMIC 820P J 50V
C3718	403 109 8302	CERAMIC 0.047U Z 50V
C3719	403 075 0706	CERAMIC 6800P K 50V
C3720	403 068 2007	CERAMIC 0.022U K 25V
C3722	403 176 3200	CERAMIC 1U Z 25V
C3723	403 100 9704	CERAMIC 0.1U M 25V
C3724	403 176 3200	CERAMIC 1U Z 25V
C3801	403 068 2007	CERAMIC 0.022U K 25V
C3802	403 152 9707	ELECT 22U M 6.3V
C3803	403 043 9700	ELECT 47U M 16V
C3804	403 100 9704	CERAMIC 0.1U M 25V
C3805	403 165 4706	ELECT 100U M 10V
C3806	403 100 9704	CERAMIC 0.1U M 25V
C3807	403 173 0608	ELECT 4.7U M 25V
C3808	403 100 9704	CERAMIC 0.1U M 25V
C3809	403 165 4706	ELECT 100U M 10V
C3810	403 031 2201	CERAMIC 680P J 50V
C3811	403 100 9704	CERAMIC 0.1U M 25V
C3812	403 176 3101	CERAMIC 0.22U Z 50V
C3813	403 176 3101	CERAMIC 0.22U Z 50V
C3814	403 176 3101	CERAMIC 0.22U Z 50V
C3815	403 100 9704	CERAMIC 0.1U M 25V
C3817	403 176 3200	CERAMIC 1U Z 25V
C3818	403 176 3200	CERAMIC 1U Z 25V
C3819	403 041 9603	ELECT 10U M 16V
C3820	403 176 3200	CERAMIC 1U Z 25V
C3821	403 152 8700	ELECT 3.3U M 50V
C3822	403 041 9603	ELECT 10U M 16V
C3823	403 176 3200	CERAMIC 1U Z 25V
C3824	403 041 9603	ELECT 10U M 16V
C3825	403 109 8302	CERAMIC 0.047U Z 50V
C3826	403 109 8302	CERAMIC 0.047U Z 50V
C3827	403 176 3200	CERAMIC 1U Z 25V
C3828	403 009 5708	CERAMIC 100P J 50V
C3829	403 100 9704	CERAMIC 0.1U M 25V
C3830	403 176 3200	CERAMIC 1U Z 25V
C3831	403 069 1702	CERAMIC 1000P K 50V
C3832	403 069 1702	CERAMIC 1000P K 50V
C3833	403 069 1702	CERAMIC 1000P K 50V
C3834	403 009 5708	CERAMIC 100P J 50V

LOCATION	PARTS NO.	DESCRIPTION
C3835	403 069 5601	CERAMIC 0.01U K 50V
CT321	636 000 4795	TRIMMER
D3501	407 004 0607	DIODE DCB010
D3502	407 004 1000	DIODE DCB010
D3504	407 004 0607	DIODE DCB010
D3505	407 004 0607	DIODE DCB010
D3507	407 004 0607	DIODE DCB010
D3801	407 066 8702	DIODE SB10-05PCP-TD
OR	636 000 0438	DIODE
D3802	407 066 8702	DIODE SB10-05PCP-TD
OR	636 000 0438	DIODE
IC321	409 170 0900	IC LVA519F-T1
IC322	409 170 0603	IC UPD6142G-101-T1
IC323	409 159 1805	IC TC4077BF(TP1)
IC324	409 020 9909	IC LC4081BM-T1
IC325	409 087 2400	IC LC74HC32M-T1
IC351	410 083 3001	IC UPD78112GF-545-3BE
IC352	409 085 0705	IC LB1631M-T1
IC353	409 020 8902	IC LC4066BM-T1
IC355	409 167 7103	IC NJM2107F-TE1
IC356	409 170 0801	IC PST529DMT-L
IC357	409 137 9007	IC TC4S81F(TE85L)
OR	409 159 2406	IC SC14S81FEL
IC358	409 155 7702	IC TC4S66F(TE85L)
IC359	409 051 6601	IC TC4538BF-TP1
IC371	409 150 0500	IC CXA1204Q
IC381	409 139 5304	IC LB1617M-T1
IC382	409 004 8508	IC CX20114-T1
IC383	409 018 4701	IC LA6458M-T1
IC384	409 018 4701	IC LA6458M-T1
IC385	409 018 4008	IC LA6393M-T1
IC386	409 018 3704	IC LA6358M-T1
L3201	636 003 2224	HF CHOKE,100 UH
L3202	636 003 1241	HF CHOKE, 33 UH
L3501	636 003 2101	HF CHOKE, 10 UH
L3701	636 003 2224	HF CHOKE,100 UH
L3702	636 002 8876	RF CHOKE,330 UH
L3801	636 002 8524	LF CHOKE,100 UH
L3802	636 023 6226	COIL,INDUCTOR 700UH
L3803	636 023 6226	COIL,INDUCTOR 700UH
Q3201	405 015 8407	TR 2SC2812-L5
Q3202	405 002 6706	TR 2SA1179-M6
Q3203	405 002 6706	TR 2SA1179-M6
Q3501	405 035 1105	TR FMW1-T99
Q3502	405 035 1105	TR FMW1-T99
Q3503	405 018 2402	TR 2SC3398
Q3504	405 015 8407	TR 2SC2812-L5
Q3505	405 002 6706	TR 2SA1179-M6
Q3506	405 002 6706	TR 2SA1179-M6
Q3507	405 003 7405	TR 2SA1344
Q3801	405 047 9304	TR 2SB1205-S-TL
Q3802	405 015 8407	TR 2SC2812-L5
Q3803	405 006 8904	TR 2SB1121-T-TD
Q3804	405 006 8904	TR 2SB1121-T-TD
Q3805	405 018 2402	TR 2SC3398
Q3806	405 015 8407	TR 2SC2812-L5
Q3807	405 002 6706	TR 2SA1179-M6
Q3810	405 002 6706	TR 2SA1179-M6
R3201	401 037 5608	MT-GLAZE 10K JA 1/10W
R3202	401 037 5608	MT-GLAZE 10K JA 1/10W
R3203	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R3204	401 038 2101	MT-GLAZE 2.7K JA 1/10W
R3205	401 037 5806	MT-GLAZE 1M JA 1/10W

LOCATION	PARTS NO.	DESCRIPTION
R3206	401 037 5608	MT-GLAZE 10K JA 1/10W
R3207	401 039 0403	MT-GLAZE 8.2K JA 1/10W
R3208	401 038 2200	MT-GLAZE 27K JA 1/10W
R3209	401 038 2101	MT-GLAZE 2.7K JA 1/10W
R3210	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R3211	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3212	401 038 2200	MT-GLAZE 27K JA 1/10W
R3213	401 037 5707	MT-GLAZE 100K JA 1/10W
R3214	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R3215	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R3216	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R3217	401 037 5707	MT-GLAZE 100K JA 1/10W
R3219	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3220	401 037 5608	MT-GLAZE 10K JA 1/10W
R3501	401 037 5707	MT-GLAZE 100K JA 1/10W
R3502	401 037 5707	MT-GLAZE 100K JA 1/10W
R3503	401 037 5707	MT-GLAZE 100K JA 1/10W
R3504	401 037 5608	MT-GLAZE 10K JA 1/10W
R3505	401 037 5608	MT-GLAZE 10K JA 1/10W
R3506	401 037 5608	MT-GLAZE 10K JA 1/10W
R3507	401 037 5400	MT-GLAZE 1K JA 1/10W
R3508	401 037 5608	MT-GLAZE 10K JA 1/10W
R3509	401 038 3801	MT-GLAZE 330K JA 1/10W
R3510	401 038 5300	MT-GLAZE 39K JA 1/10W
R3511	401 038 5300	MT-GLAZE 39K JA 1/10W
R3514	401 038 2309	MT-GLAZE 270K JA 1/10W
R3515	401 038 6505	MT-GLAZE 47K JA 1/10W
R3516	401 037 5608	MT-GLAZE 10K JA 1/10W
R3517	401 037 5608	MT-GLAZE 10K JA 1/10W
R3518	401 037 8104	MT-GLAZE 150K JA 1/10W
R3519	401 038 1401	MT-GLAZE 24K JA 1/10W
R3520	401 037 5400	MT-GLAZE 1K JA 1/10W
R3522	401 037 5608	MT-GLAZE 10K JA 1/10W
R3523	401 037 5608	MT-GLAZE 10K JA 1/10W
R3524	401 038 7809	MT-GLAZE 56K JA 1/10W
R3525	401 037 5707	MT-GLAZE 100K JA 1/10W
R3526	401 038 6505	MT-GLAZE 47K JA 1/10W
R3527	401 038 7809	MT-GLAZE 56K JA 1/10W
R3528	401 037 5707	MT-GLAZE 100K JA 1/10W
R3529	401 038 6505	MT-GLAZE 47K JA 1/10W
R3530	401 037 5608	MT-GLAZE 10K JA 1/10W
R3531	401 037 8104	MT-GLAZE 150K JA 1/10W
R3532	401 037 5608	MT-GLAZE 10K JA 1/10W
R3533	401 037 8104	MT-GLAZE 150K JA 1/10W
R3534	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3536	401 037 5707	MT-GLAZE 100K JA 1/10W
R3537	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R3538	401 037 5608	MT-GLAZE 10K JA 1/10W
R3539	401 037 5608	MT-GLAZE 10K JA 1/10W
R3543	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R3544	401 037 7800	MT-GLAZE 150 JA 1/10W
R3546	401 037 5608	MT-GLAZE 10K JA 1/10W
R3548	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3549	401 038 6307	MT-GLAZE 470 JA 1/10W
R3550	401 038 0800	MT-GLAZE 22K JA 1/10W
R3551	401 038 0800	MT-GLAZE 22K JA 1/10W
R3552	401 038 0800	MT-GLAZE 22K JA 1/10W
R3557	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R3558	401 037 5608	MT-GLAZE 10K JA 1/10W
R3559	401 037 5608	MT-GLAZE 10K JA 1/10W
R3560	401 038 0909	MT-GLAZE 220K JA 1/10W
R3561	401 038 0909	MT-GLAZE 220K JA 1/10W
R3563	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3564	401 037 5608	MT-GLAZE 10K JA 1/10W
R3575	401 037 5608	MT-GLAZE 10K JA 1/10W
R3576	401 037 5608	MT-GLAZE 10K JA 1/10W
R3582	401 038 6505	MT-GLAZE 47K JA 1/10W
R3583	401 038 6505	MT-GLAZE 47K JA 1/10W
R3584	401 038 6505	MT-GLAZE 47K JA 1/10W

LOCATION	PARTS NO.	DESCRIPTION
R3585	401 038 6505	MT-GLAZE 47K JA 1/10W
R3586	401 037 5608	MT-GLAZE 10K JA 1/10W
R3587	401 037 5608	MT-GLAZE 10K JA 1/10W
R3588	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3589	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3590	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3591	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3592	401 037 5608	MT-GLAZE 10K JA 1/10W
R3593	401 037 5608	MT-GLAZE 10K JA 1/10W
R3594	401 038 6604	MT-GLAZE 470K JA 1/10W
R3595	401 037 5608	MT-GLAZE 10K JA 1/10W
R3597	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3599	401 150 5509	OXIDE-MT 8.2 JA 1W
R3602	401 037 5400	MT-GLAZE 1K JA 1/10W
R3603	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R3701	401 038 6505	MT-GLAZE 47K JA 1/10W
R3702	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3703	401 038 6505	MT-GLAZE 47K JA 1/10W
R3704	401 037 5707	MT-GLAZE 100K JA 1/10W
R3705	401 038 6505	MT-GLAZE 47K JA 1/10W
R3706	401 038 6505	MT-GLAZE 47K JA 1/10W
R3711	401 037 5806	MT-GLAZE 1M JA 1/10W
R3712	401 037 5400	MT-GLAZE 1K JA 1/10W
R3713	401 037 5608	MT-GLAZE 10K JA 1/10W
R3714	401 037 5608	MT-GLAZE 10K JA 1/10W
R3715	401 038 9407	MT-GLAZE 680K JA 1/10W
R3716	401 038 5003	MT-GLAZE 390 JA 1/10W
R3719	401 037 8104	MT-GLAZE 150K JA 1/10W
R3720	401 037 5707	MT-GLAZE 100K JA 1/10W
R3721	401 037 5608	MT-GLAZE 10K JA 1/10W
R3722	401 038 2309	MT-GLAZE 270K JA 1/10W
R3801	401 037 5400	MT-GLAZE 1K JA 1/10W
R3802	401 038 5300	MT-GLAZE 39K JA 1/10W
R3803	401 038 5300	MT-GLAZE 39K JA 1/10W
R3804	401 037 5608	MT-GLAZE 10K JA 1/10W
R3805	401 037 5608	MT-GLAZE 10K JA 1/10W
R3806	401 037 5400	MT-GLAZE 1K JA 1/10W
R3807	401 038 0602	MT-GLAZE 220 JA 1/10W
R3808	401 038 6307	MT-GLAZE 470 JA 1/10W
R3809	401 038 6307	MT-GLAZE 470 JA 1/10W
R3810	401 037 5608	MT-GLAZE 10K JA 1/10W
R3811	401 038 6307	MT-GLAZE 470 JA 1/10W
R3812	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R3813	401 098 7603	MT-GLAZE 2.2 JA 1/10W
R3814	401 098 7603	MT-GLAZE 2.2 JA 1/10W
R3815	401 098 7603	MT-GLAZE 2.2 JA 1/10W
R3816	401 038 3702	MT-GLAZE 33K JA 1/10W
R3817	401 038 2002	MT-GLAZE 270 JA 1/10W
R3818	401 037 5608	MT-GLAZE 10K JA 1/10W
R3830	401 038 6307	MT-GLAZE 470 JA 1/10W
R3831	401 037 5400	MT-GLAZE 1K JA 1/10W
R3832	401 037 5608	MT-GLAZE 10K JA 1/10W
R3833	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R3834	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R3835	401 038 6505	MT-GLAZE 47K JA 1/10W
R3836	401 038 6505	MT-GLAZE 47K JA 1/10W
R3837	401 037 8104	MT-GLAZE 150K JA 1/10W
R3838	401 037 5202	MT-GLAZE 100 JA 1/10W
R3839	401 039 0304	MT-GLAZE 820 JA 1/10W
R3840	401 038 3702	MT-GLAZE 33K JA 1/10W
R3841	401 038 0800	MT-GLAZE 22K JA 1/10W
R3842	401 038 6307	MT-GLAZE 470 JA 1/10W
R3843	401 037 5806	MT-GLAZE 1M JA 1/10W
R3844	401 038 5300	MT-GLAZE 39K JA 1/10W
R3845	401 038 5300	MT-GLAZE 39K JA 1/10W
R3846	401 038 5300	MT-GLAZE 39K JA 1/10W
R3847	401 037 5806	MT-GLAZE 1M JA 1/10W
R3848	401 038 5201	MT-GLAZE 39K GA 1/10W
R3849	401 147 3808	MT-GLAZE 27K GA 1/10W

LOCATION	PARTS NO.	DESCRIPTION
R3850	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R3851	401 037 5806	MT-GLAZE 1M JA 1/10W
R3852	401 037 5608	MT-GLAZE 10K JA 1/10W
R3853	401 037 5608	MT-GLAZE 10K JA 1/10W
R3854	401 089 2709	MT-GLAZE 10K GA 1/10W
R3855	401 089 2709	MT-GLAZE 10K GA 1/10W
R3856	401 038 6505	MT-GLAZE 47K JA 1/10W
R3857	401 037 5400	MT-GLAZE 1K JA 1/10W
R3859	401 037 5707	MT-GLAZE 100K JA 1/10W
R3860	401 037 5707	MT-GLAZE 100K JA 1/10W
VR321	636 019 7909	SVR 10K OHM
VR351	636 019 7909	SVR 10K OHM
VR352	636 019 7992	SVR 22K OHM
VR354	636 019 7992	SVR 22K OHM
X3501	636 025 5593	OSC.CRYSTAL 12MHZ
X3701	636 000 4917	CRYSTAL

COMPL.SY-1

LOCATION	PARTS NO.	DESCRIPTION
COMPL.NO.	636 026 1129	
C3001	403 009 5708	CERAMIC 100P J 50V
C3002	403 028 4102	CERAMIC 56P J 50V
C3003	403 028 4102	CERAMIC 56P J 50V
C3004	403 022 2609	CERAMIC 30P J 50V
C3005	403 022 2609	CERAMIC 30P J 50V
C3006	403 022 8205	CERAMIC 33P J 50V
C3007	403 038 2105	ELECT 100U M 6.3V
C3008	403 067 9809	CERAMIC 0.1U K 25V
C3009	403 041 9603	ELECT 10U M 16V
C3010	403 069 5601	CERAMIC 0.01U K 50V
C3011	403 067 9809	CERAMIC 0.1U K 25V
C3012	403 069 5601	CERAMIC 0.01U K 50V
C3013	403 134 7400	CERAMIC 1U Z 16V
C3014	403 069 5601	CERAMIC 0.01U K 50V
C3015	403 069 5601	CERAMIC 0.01U K 50V
C3016	403 100 9704	CERAMIC 0.1U M 25V
CT301	636 000 4795	TRIMMER
D3001	407 056 6909	ZENER DIODE RD4.7MB2
D3002	407 117 5100	LED BG1102W-TR
D3003	407 117 5001	LED BR1102W-TR
D3005	407 004 0607	DIODE DCB010
D3006	407 004 0102	DIODE DCB010
D3007	407 004 0607	DIODE DCB010
D3008	407 004 0102	DIODE DCB010
D3009	407 004 0102	DIODE DCB010
D3010	407 004 0102	DIODE DCB010
D3011	407 004 0102	DIODE DCB010
D3012	407 004 0607	DIODE DCB010
D3013	407 004 0102	DIODE DCB010
D3014	407 004 0607	DIODE DCB010
D3015	407 004 0607	DIODE DCB010
D3016	407 004 0102	DIODE DCB010
D3017	407 004 0607	DIODE DCB010
D3018	407 004 0102	DIODE DCB010
D3020	407 004 0607	DIODE DCB010
IC301	410 069 1700	IC UPD75008GB-542-3B4
IC302	409 111 7401	IC LVC550C
IC303	409 170 0801	IC PST529DMT-L
IC304	409 087 2400	IC LC74HC32M-T1
Q3001	405 015 8407	TR 2SC2812-L5
Q3002	405 008 7509	TR 2SB815-B6
Q3003	405 027 1403	TR 2SK303-V3
Q3004	405 065 5708	TR FMS1-T99

LOCATION	PARTS NO.	DESCRIPTION
Q3005	405 015 8407	TR 2SC2812-L5
Q3007	405 002 6706	TR 2SA1179-M6
Q3008	405 002 6706	TR 2SA1179-M6
Q3009	405 018 1900	TR 2SC3395
Q3013	405 003 7405	TR 2SA1344
Q3014	405 015 8407	TR 2SC2812-L5
R3001	401 037 5707	MT-GLAZE 100K JA 1/10W
R3002	401 037 5707	MT-GLAZE 100K JA 1/10W
R3003	401 038 2002	MT-GLAZE 270 JA 1/10W
R3004	401 037 5707	MT-GLAZE 100K JA 1/10W
R3005	401 037 5707	MT-GLAZE 100K JA 1/10W
R3006	401 037 7909	MT-GLAZE 1.5K JA 1/10W
R3008	401 037 5707	MT-GLAZE 100K JA 1/10W
R3009	401 038 9308	MT-GLAZE 68K JA 1/10W
R3010	401 037 5608	MT-GLAZE 10K JA 1/10W
R3011	401 038 1005	MT-GLAZE 2.2M JA 1/10W
R3012	401 038 5300	MT-GLAZE 39K JA 1/10W
R3013	401 037 5707	MT-GLAZE 100K JA 1/10W
R3014	401 037 5707	MT-GLAZE 100K JA 1/10W
R3015	401 038 0909	MT-GLAZE 220K JA 1/10W
R3016	401 038 9407	MT-GLAZE 680K JA 1/10W
R3017	401 037 5806	MT-GLAZE 1M JA 1/10W
R3018	401 038 9407	MT-GLAZE 680K JA 1/10W
R3019	401 038 9407	MT-GLAZE 680K JA 1/10W
R3020	401 038 6505	MT-GLAZE 47K JA 1/10W
R3029	401 038 3801	MT-GLAZE 330K JA 1/10W
R3030	401 037 5707	MT-GLAZE 100K JA 1/10W
R3031	401 038 6505	MT-GLAZE 47K JA 1/10W
R3032	401 037 5608	MT-GLAZE 10K JA 1/10W
R3033	401 037 5608	MT-GLAZE 10K JA 1/10W
R3034	401 037 5608	MT-GLAZE 10K JA 1/10W
R3035	401 037 5608	MT-GLAZE 10K JA 1/10W
R3036	401 037 5608	MT-GLAZE 10K JA 1/10W
R3037	401 037 5608	MT-GLAZE 10K JA 1/10W
R3038	401 037 5608	MT-GLAZE 10K JA 1/10W
R3039	401 037 5608	MT-GLAZE 10K JA 1/10W
R3043	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3044	401 037 5707	MT-GLAZE 100K JA 1/10W
R3045	401 037 5707	MT-GLAZE 100K JA 1/10W
R3046	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3048	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3051	401 037 5707	MT-GLAZE 100K JA 1/10W
R3053	401 037 5707	MT-GLAZE 100K JA 1/10W
R3054	401 037 5608	MT-GLAZE 10K JA 1/10W
R3055	401 037 5707	MT-GLAZE 100K JA 1/10W
R3056	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3057	401 038 6307	MT-GLAZE 470 JA 1/10W
R3058	401 038 6307	MT-GLAZE 470 JA 1/10W
R3059	401 037 5400	MT-GLAZE 1K JA 1/10W
R3060	401 037 5608	MT-GLAZE 10K JA 1/10W
R3062	401 037 5707	MT-GLAZE 100K JA 1/10W
R3070	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3071	401 038 6307	MT-GLAZE 470 JA 1/10W
R3072	401 037 5004	MT-GLAZE 0 ZA 1/10W
R3073	401 037 5806	MT-GLAZE 1M JA 1/10W
R3074	401 037 5608	MT-GLAZE 10K JA 1/10W
R3076	401 038 6208	MT-GLAZE 47 JA 1/10W
S3001	636 019 0313	SW.SLIDE
S3002	636 019 0313	SW.SLIDE
S3003	636 025 2950	SW.PUSH
S3004	636 025 2950	SW.PUSH
S3005	636 025 2950	SW.PUSH
S3006	636 025 2950	SW.PUSH
S3007	636 025 0529	SW.SLIDE
VR301	636 000 2999	SVR 47K OHM

LOCATION	PARTS NO.	DESCRIPTION
X3001	636 025 0574	RESONATOR.CERAMIC
X3002	636 000 5099	CRYSTAL
OR	636 025 5876	OSC,CRYSTAL 32.768MHZ

COMPL,SY-2

COMPL.NO. 636 029 4875

LOCATION	PARTS NO.	DESCRIPTION
D3101	407 004 0607	DIODE DCB010
D3102	407 004 0607	DIODE DCB010
D3103	407 004 0102	DIODE DCB010
D3104	407 004 0607	DIODE DCB010
D3105	407 004 0102	DIODE DCB010
D3107	407 004 0607	DIODE DCB010
D3108	407 004 0607	DIODE DCB010
Q3101	405 002 6706	TR 2SA1179-M6
Q3103	405 003 7306	TR 2SA1343
R3101	401 038 6505	MT-GLAZE 47K JA 1/10W
R3102	401 038 6505	MT-GLAZE 47K JA 1/10W
R3121	401 037 5707	MT-GLAZE 100K JA 1/10W
R3122	401 037 5707	MT-GLAZE 100K JA 1/10W
R3123	401 037 5707	MT-GLAZE 100K JA 1/10W
R3124	401 037 5707	MT-GLAZE 100K JA 1/10W
R3125	401 037 5707	MT-GLAZE 100K JA 1/10W
R3126	401 037 5707	MT-GLAZE 100K JA 1/10W
R3127	401 037 5707	MT-GLAZE 100K JA 1/10W
R3128	401 037 5707	MT-GLAZE 100K JA 1/10W
S3101	636 000 8571	PUSH SWITCH
S3102	636 000 8571	PUSH SWITCH
S3103	636 000 8571	PUSH SWITCH
S3104	636 000 8571	PUSH SWITCH
S3105	636 000 8571	PUSH SWITCH
S3106	636 000 8571	PUSH SWITCH
S3107	636 000 8571	PUSH SWITCH
S3108	636 000 8571	PUSH SWITCH

COMPL,TB-1

COMPL.NO. 636 025 2271

LOCATION	PARTS NO.	DESCRIPTION
S8601	636 025 0543	SW,PUSH

COMPL,CA-1

COMPL.NO. 636 027 7748

LOCATION	PARTS NO.	DESCRIPTION
C9001	403 093 0306	TA-SOLID 1U M 35V
C9002	403 152 9905	ELECT 4.7U M 25V
C9003	403 176 0209	CERAMIC 0.1U Z 25V
C9004	403 176 0209	CERAMIC 0.1U Z 25V
C9005	403 145 9905	CERAMIC 22P J 50V
C9006	403 145 9905	CERAMIC 22P J 50V
C9007	403 091 4801	TA-SOLID 3.3U M 16V
C9008	403 155 1807	CERAMIC 0.01U K 25V
C9009	403 176 0209	CERAMIC 0.1U Z 25V
C9012	403 155 1807	CERAMIC 0.01U K 25V
C9013	403 091 0407	TA-SOLID 1U M 16V
C9014	403 091 4801	TA-SOLID 3.3U M 16V
C9015	403 155 1807	CERAMIC 0.01U K 25V
C9016	403 091 0407	TA-SOLID 1U M 16V
C9017	403 152 9004	ELECT 47U M 6.3V
C9018	403 091 4801	TA-SOLID 3.3U M 16V
C9019	403 155 1807	CERAMIC 0.01U K 25V
C9021	403 155 1807	CERAMIC 0.01U K 25V
C9022	403 152 9707	ELECT 22U M 6.3V
C9024	403 155 2309	CERAMIC 4700P K 50V
C9025	403 113 3805	CERAMIC 1000P K 50V
C9026	403 157 3601	CERAMIC 100P J 50V
C9027	403 155 1807	CERAMIC 0.01U K 25V
C9028	403 113 3805	CERAMIC 1000P K 50V
C9029	403 157 2901	CERAMIC 47P J 50V
C9031	403 155 1807	CERAMIC 0.01U K 25V
C9032	403 157 2307	CERAMIC 20P J 50V
C9034	403 113 3805	CERAMIC 1000P K 50V
C9035	403 155 1807	CERAMIC 0.01U K 25V
C9036	403 155 1807	CERAMIC 0.01U K 25V
C9037	403 155 1807	CERAMIC 0.01U K 25V
C9038	403 155 1807	CERAMIC 0.01U K 25V
C9039	403 091 0407	TA-SOLID 1U M 16V
C9041	403 091 0407	TA-SOLID 1U M 16V
C9042	403 155 1807	CERAMIC 0.01U K 25V
C9043	403 176 0209	CERAMIC 0.1U Z 25V
C9044	403 176 0209	CERAMIC 0.1U Z 25V
C9045	403 176 0209	CERAMIC 0.1U Z 25V
C9046	403 176 0209	CERAMIC 0.1U Z 25V
C9047	403 152 9707	ELECT 22U M 6.3V
C9049	403 089 4806	TA-SOLID 10U M 4V
C9051	403 157 2901	CERAMIC 47P J 50V
C9052	403 155 1807	CERAMIC 0.01U K 25V
C9053	403 176 0209	CERAMIC 0.1U Z 25V
C9054	403 176 0209	CERAMIC 0.1U Z 25V
C9055	403 176 0209	CERAMIC 0.1U Z 25V
C9056	403 176 0209	CERAMIC 0.1U Z 25V
C9057	403 176 0209	CERAMIC 0.1U Z 25V
C9058	403 155 1807	CERAMIC 0.01U K 25V
C9059	403 176 3309	CERAMIC 0.22U Z 25V
C9061	403 176 0209	CERAMIC 0.1U Z 25V
C9062	403 176 0209	CERAMIC 0.1U Z 25V
C9063	403 176 0209	CERAMIC 0.1U Z 25V
C9064	403 155 1807	CERAMIC 0.01U K 25V
C9065	403 152 9707	ELECT 22U M 6.3V
C9066	403 176 0209	CERAMIC 0.1U Z 25V
C9067	403 176 0209	CERAMIC 0.1U Z 25V
C9068	403 155 1807	CERAMIC 0.01U K 25V
C9069	403 152 9707	ELECT 22U M 6.3V
C9071	403 091 0407	TA-SOLID 1U M 16V
C9072	403 176 0209	CERAMIC 0.1U Z 25V
C9073	403 091 0407	TA-SOLID 1U M 16V
C9074	403 157 2901	CERAMIC 47P J 50V
C9075	403 157 2901	CERAMIC 47P J 50V
C9076	403 091 0407	TA-SOLID 1U M 16V
C9077	403 091 0407	TA-SOLID 1U M 16V
C9078	403 091 0407	TA-SOLID 1U M 16V
C9079	403 091 0407	TA-SOLID 1U M 16V
C9081	403 176 0209	CERAMIC 0.1U Z 25V
C9082	403 176 0209	CERAMIC 0.1U Z 25V
C9083	403 176 0209	CERAMIC 0.1U Z 25V
C9084	403 176 0209	CERAMIC 0.1U Z 25V
C9085	403 176 0209	CERAMIC 0.1U Z 25V
C9086	403 176 0209	CERAMIC 0.1U Z 25V
C9087	403 176 0209	CERAMIC 0.1U Z 25V
C9088	403 176 0209	CERAMIC 0.1U Z 25V
C9089	403 176 0209	CERAMIC 0.1U Z 25V
C9091	403 176 0209	CERAMIC 0.1U Z 25V
C9092	403 176 0209	CERAMIC 0.1U Z 25V
C9093	403 176 0209	CERAMIC 0.1U Z 25V
C9094	403 176 0209	CERAMIC 0.1U Z 25V
C9095	403 176 0209	CERAMIC 0.1U Z 25V
C9096	403 176 0209	CERAMIC 0.1U Z 25V
C9097	403 176 0209	CERAMIC 0.1U Z 25V
C9098	403 176 0209	CERAMIC 0.1U Z 25V
C9099	403 176 0209	CERAMIC 0.1U Z 25V
C9101	403 176 0209	CERAMIC 0.1U Z 25V
C9102	403 176 0209	CERAMIC 0.1U Z 25V
C9103	403 176 0209	CERAMIC 0.1U Z 25V
C9104	403 176 0209	CERAMIC 0.1U Z 25V
C9105	403 157 3403	CERAMIC 75P J 50V
C9106	403 157 3700	CERAMIC 110P J 50V

LOCATION	PARTS NO.	DESCRIPTION
C9107	403 157 2307	CERAMIC 20P J 50V
C9108	403 157 2505	CERAMIC 27P J 50V
C9109	403 169 2807	CERAMIC 330P J 50V
C9111	403 157 3304	CERAMIC 68P J 50V
C9112	403 176 0209	CERAMIC 0.1U Z 25V
C9116	403 157 2307	CERAMIC 20P J 50V
C9117	403 090 2006	TA-SOLID 6.8U M 6.3V
C9118	403 090 2006	TA-SOLID 6.8U M 6.3V
C9122	403 090 2006	TA-SOLID 6.8U M 6.3V
C9123	403 090 2006	TA-SOLID 6.8U M 6.3V
C9124	403 152 9608	ELECT 47U M 4V
C9125	403 157 3601	CERAMIC 100P J 50V
C9126	403 038 6707	ELECT 220U M 6.3V
C9127	403 089 4806	TA-SOLID 10U M 4V
C9128	403 176 0209	CERAMIC 0.1U Z 25V
C9129	403 090 2006	TA-SOLID 6.8U M 6.3V
D9101	407 113 5609	DIODE DSH015-TL
D9102	407 113 5609	DIODE DSH015-TL
D9103	407 113 5609	DIODE DSH015-TL
D9104	407 113 5609	DIODE DSH015-TL
D9105	407 113 5609	DIODE DSH015-TL
D9106	407 099 2906	VARACTOR DI 1SV200-11TLC
IC901	409 183 2700	IC CXD1250M-T1
IC902	409 183 2601	IC CXD1156R
IC903	409 155 7306	IC TC4S71F(TE85L)
OR	409 184 8008	IC SC14S71FEL
IC904	409 180 1300	IC SC14S69FEL
OR	409 155 7405	IC TC4S69F(TE85L)
IC905	409 183 2809	IC CXD1251Q
IC907	409 183 2007	IC CXD1159Q
IC908	409 183 2304	IC CXA1337R
IC909	409 183 2908	IC CXL1503M-T1
IC911	409 183 2403	IC CXA1338R
L9101	636 003 2101	HF CHOKE, 10 UH
L9102	636 003 2101	HF CHOKE, 10 UH
L9103	636 003 2101	HF CHOKE, 10 UH
L9104	636 003 2101	HF CHOKE, 10 UH
L9105	636 003 2101	HF CHOKE, 10 UH
L9106	636 003 2101	HF CHOKE, 10 UH
L9107	636 003 2101	HF CHOKE, 10 UH
L9108	636 003 2101	HF CHOKE, 10 UH
Q9101	405 077 3402	TR 2SC4211-6-TL
Q9102	405 077 3402	TR 2SC4211-6-TL
Q9103	405 077 3402	TR 2SC4211-6-TL
Q9104	405 088 6904	TR 2SC4176B35
Q9105	405 088 7000	TR 2SA1610Y34
Q9106	405 088 7000	TR 2SA1610Y34
Q9107	405 088 6904	TR 2SC4176B35
Q9108	405 077 3402	TR 2SC4211-6-TL
Q9109	405 045 8200	TR 2SK443-6
Q9111	405 077 2207	TR 2SA1622-6-TL
Q9112	405 077 3402	TR 2SC4211-6-TL
Q9113	405 077 2207	TR 2SA1622-6-TL
Q9114	405 077 3402	TR 2SC4211-6-TL
Q9115	405 077 2207	TR 2SA1622-6-TL
Q9116	405 077 3402	TR 2SC4211-6-TL
Q9117	405 065 5708	TR FMS1-T99
Q9118	405 077 2207	TR 2SA1622-6-TL
Q9119	405 077 2207	TR 2SA1622-6-TL
Q9121	405 077 2207	TR 2SA1622-6-TL
Q9122	405 077 2207	TR 2SA1622-6-TL
Q9123	405 079 7507	TR IMX3-T109
Q9124	405 077 2207	TR 2SA1622-6-TL
Q9125	405 082 9000	TR IMZ2-T99

LOCATION	PARTS NO.	DESCRIPTION
Q9126	405 077 3402	TR 2SC4211-6-TL
Q9131	405 077 2207	TR 2SA1622-6-TL
Q9132	405 077 2207	TR 2SA1622-6-TL
Q9134	405 077 3402	TR 2SC4211-6-TL
R9001	401 105 8005	MT-GLAZE 1M JA 1/16W
R9002	401 105 1600	MT-GLAZE 15K JA 1/16W
R9003	401 105 1600	MT-GLAZE 15K JA 1/16W
R9004	401 105 3505	MT-GLAZE 270K JA 1/16W
R9005	401 105 4700	MT-GLAZE 39K JA 1/16W
R9006	401 105 3406	MT-GLAZE 27K JA 1/16W
R9007	401 105 8104	MT-GLAZE 56K JA 1/16W
R9008	401 105 8005	MT-GLAZE 1M JA 1/16W
R9009	401 105 0405	MT-GLAZE 100 JA 1/16W
R9011	401 105 2904	MT-GLAZE 22K JA 1/16W
R9012	401 105 8203	MT-GLAZE 68K JA 1/16W
R9013	401 113 5409	MT-GLAZE 510 JA 1/16W
R9014	401 105 2201	MT-GLAZE 180K JA 1/16W
R9015	401 105 3406	MT-GLAZE 27K JA 1/16W
R9016	401 105 2904	MT-GLAZE 22K JA 1/16W
R9017	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9018	401 105 0405	MT-GLAZE 100 JA 1/16W
R9019	401 105 6506	MT-GLAZE 680 JA 1/16W
R9021	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9023	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9025	401 105 8005	MT-GLAZE 1M JA 1/16W
R9026	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9027	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9028	401 105 0405	MT-GLAZE 100 JA 1/16W
R9029	401 105 0504	MT-GLAZE 1K JA 1/16W
R9031	401 105 1402	MT-GLAZE 150 JA 1/16W
R9032	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9033	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9034	401 105 2706	MT-GLAZE 220 JA 1/16W
R9035	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R9036	401 105 1402	MT-GLAZE 150 JA 1/16W
R9037	401 105 0702	MT-GLAZE 100K JA 1/16W
R9038	401 105 0603	MT-GLAZE 10K JA 1/16W
R9039	401 105 8203	MT-GLAZE 68K JA 1/16W
R9041	401 105 8005	MT-GLAZE 1M JA 1/16W
R9042	401 105 0405	MT-GLAZE 100 JA 1/16W
R9045	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9046	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9047	401 105 0702	MT-GLAZE 100K JA 1/16W
R9048	401 105 5400	MT-GLAZE 47K JA 1/16W
R9049	401 105 2904	MT-GLAZE 22K JA 1/16W
R9051	401 105 2904	MT-GLAZE 22K JA 1/16W
R9052	401 105 4304	MT-GLAZE 330K JA 1/16W
R9053	401 105 0603	MT-GLAZE 10K JA 1/16W
R9054	401 105 0603	MT-GLAZE 10K JA 1/16W
R9055	401 105 0603	MT-GLAZE 10K JA 1/16W
R9056	401 105 0504	MT-GLAZE 1K JA 1/16W
R9057	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9059	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9062	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9063	401 105 0504	MT-GLAZE 1K JA 1/16W
R9064	401 105 0504	MT-GLAZE 1K JA 1/16W
R9066	401 105 1600	MT-GLAZE 15K JA 1/16W
R9067	401 105 2904	MT-GLAZE 22K JA 1/16W
R9068	401 105 0603	MT-GLAZE 10K JA 1/16W
R9069	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R9071	401 113 6703	MT-GLAZE 9.1K JA 1/16W
R9072	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R9073	401 105 2706	MT-GLAZE 220 JA 1/16W
R9074	401 105 2706	MT-GLAZE 220 JA 1/16W
R9075	401 105 0603	MT-GLAZE 10K JA 1/16W
R9076	401 105 0603	MT-GLAZE 10K JA 1/16W
R9077	401 105 0603	MT-GLAZE 10K JA 1/16W
R9078	401 105 0603	MT-GLAZE 10K JA 1/16W

LOCATION	PARTS NO.	DESCRIPTION
R9079	401 105 1600	MT-GLAZE 15K JA 1/16W
R9083	401 105 1600	MT-GLAZE 15K JA 1/16W
R9084	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9086	401 105 2102	MT-GLAZE 18K JA 1/16W
R9087	401 105 4205	MT-GLAZE 33K JA 1/16W
R9089	401 105 0603	MT-GLAZE 10K JA 1/16W
R9091	401 105 0603	MT-GLAZE 10K JA 1/16W
R9092	401 105 4205	MT-GLAZE 33K JA 1/16W
R9093	401 105 3406	MT-GLAZE 27K JA 1/16W
R9094	401 105 0504	MT-GLAZE 1K JA 1/16W
R9095	401 105 0504	MT-GLAZE 1K JA 1/16W
R9096	401 105 0504	MT-GLAZE 1K JA 1/16W
R9097	401 105 0504	MT-GLAZE 1K JA 1/16W
R9098	401 105 0603	MT-GLAZE 10K JA 1/16W
R9099	401 105 0603	MT-GLAZE 10K JA 1/16W
R9101	401 105 0504	MT-GLAZE 1K JA 1/16W
R9102	401 105 0504	MT-GLAZE 1K JA 1/16W
R9103	401 105 0603	MT-GLAZE 10K JA 1/16W
R9105	401 105 2904	MT-GLAZE 22K JA 1/16W
R9108	401 105 5103	MT-GLAZE 47 JA 1/16W
R9109	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9111	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9113	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9114	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9121	401 105 0504	MT-GLAZE 1K JA 1/16W
R9122	401 105 0504	MT-GLAZE 1K JA 1/16W
R9123	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9124	401 105 0702	MT-GLAZE 100K JA 1/16W
R9125	401 105 5400	MT-GLAZE 47K JA 1/16W
R9126	401 105 1105	MT-GLAZE 12K JA 1/16W
R9127	401 105 0603	MT-GLAZE 10K JA 1/16W
R9128	401 105 5400	MT-GLAZE 47K JA 1/16W
R9131	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9133	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9134	401 105 4205	MT-GLAZE 33K JA 1/16W
R9135	401 105 4205	MT-GLAZE 33K JA 1/16W
R9139	401 105 4700	MT-GLAZE 39K JA 1/16W
R9141	401 105 2102	MT-GLAZE 18K JA 1/16W
R9142	401 105 2102	MT-GLAZE 18K JA 1/16W
R9143	401 105 4700	MT-GLAZE 39K JA 1/16W
R9144	401 105 0504	MT-GLAZE 1K JA 1/16W
R9145	401 105 1105	MT-GLAZE 12K JA 1/16W
R9147	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9148	401 105 4205	MT-GLAZE 33K JA 1/16W
R9149	401 105 2102	MT-GLAZE 18K JA 1/16W
R9151	401 105 3406	MT-GLAZE 27K JA 1/16W
R9152	401 105 4205	MT-GLAZE 33K JA 1/16W
R9155	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9158	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9159	401 105 7909	MT-GLAZE 0 ZA 1/16W
T9101	636 003 4495	HF COIL TRANS
VC911	636 026 4014	CAP.TRIM 30P-W
VR901	636 019 8074	SVR 47K OHM
VR903	636 019 7992	SVR 22K OHM
VR907	636 019 7992	SVR 22K OHM
VR908	636 019 7992	SVR 22K OHM
VR909	636 019 7992	SVR 22K OHM
VR914	636 019 8074	SVR 47K OHM
VR915	636 019 8074	SVR 47K OHM
X9101	636 020 4331	CRYSTAL UNIT.28.375MHZ
OR	636 020 4324	CRYSTAL UNIT.28.375MHZ
X9102	636 000 4955	CRYSTAL.17.734476MHZ
OR	636 026 8319	OSC.CRYSTAL 17.734475MHZ

LOCATION	PARTS NO.	DESCRIPTION
COMPL.CA-2		
COMPL.NO.	636 026 4984	
A9201 ⚠	636 026 7374	UNIT.DC-DC CONVERTOR
OR ⚠	636 026 7381	UNIT.DC-DC CONVERTOR
OR ⚠	636 026 7398	UNIT.DC-DC CONVERTOR
L9201	636 002 8524	LF CHOKE.100 UH
COMPL.CA-3		
COMPL.NO.	636 027 7755	
C9301	403 113 3805	CERAMIC 1000P K 50V
C9302	403 091 0407	TA-SOLID 1U M 16V
C9303	403 091 0407	TA-SOLID 1U M 16V
C9304	403 176 0209	CERAMIC 0.1U Z 25V
C9305	403 091 0407	TA-SOLID 1U M 16V
C9306	403 091 0407	TA-SOLID 1U M 16V
C9307	403 152 9707	ELECT 22U M 6.3V
C9308	403 152 9608	ELECT 47U M 4V
C9309	403 089 6206	TA-SOLID 4.7U M 4V
C9310	403 176 0209	CERAMIC 0.1U Z 25V
C9311	403 176 0209	CERAMIC 0.1U Z 25V
C9312	403 114 5600	TA-SOLID 3.3U M 6.3V
C9313	403 176 0209	CERAMIC 0.1U Z 25V
C9314	403 176 0209	CERAMIC 0.1U Z 25V
C9315	403 114 5600	TA-SOLID 3.3U M 6.3V
C9316	403 155 1807	CERAMIC 0.01U K 25V
C9317	403 155 1807	CERAMIC 0.01U K 25V
C9318	403 155 1807	CERAMIC 0.01U K 25V
C9319	403 176 0209	CERAMIC 0.1U Z 25V
C9320	403 176 0209	CERAMIC 0.1U Z 25V
C9321	403 176 0209	CERAMIC 0.1U Z 25V
C9322	403 155 1807	CERAMIC 0.01U K 25V
C9323	403 152 9707	ELECT 22U M 6.3V
C9324	403 176 0209	CERAMIC 0.1U Z 25V
C9325	403 176 0209	CERAMIC 0.1U Z 25V
C9326	403 176 0209	CERAMIC 0.1U Z 25V
C9327	403 155 1807	CERAMIC 0.01U K 25V
C9328	403 152 9707	ELECT 22U M 6.3V
C9329	403 176 0209	CERAMIC 0.1U Z 25V
C9330	403 176 0209	CERAMIC 0.1U Z 25V
C9332	403 157 2307	CERAMIC 20P J 50V
C9333	403 157 3700	CERAMIC 110P J 50V
C9334	403 157 3403	CERAMIC 75P J 50V
C9335	403 157 3403	CERAMIC 75P J 50V
C9336	403 157 3700	CERAMIC 110P J 50V
C9337	403 157 2307	CERAMIC 20P J 50V
C9338	403 176 0209	CERAMIC 0.1U Z 25V
C9339	403 176 0209	CERAMIC 0.1U Z 25V
C9340	403 157 1904	CERAMIC 10P D 50V
C9341	403 176 0209	CERAMIC 0.1U Z 25V
C9342	403 091 0407	TA-SOLID 1U M 16V
C9343	403 176 0209	CERAMIC 0.1U Z 25V
C9344	403 155 4204	CERAMIC 15P J 50V
C9345	403 091 0407	TA-SOLID 1U M 16V
C9346	403 176 0209	CERAMIC 0.1U Z 25V
C9347	403 176 0209	CERAMIC 0.1U Z 25V
C9348	403 176 0209	CERAMIC 0.1U Z 25V
C9350	403 114 5600	TA-SOLID 3.3U M 6.3V
C9351	403 176 0209	CERAMIC 0.1U Z 25V
C9352	403 157 1904	CERAMIC 10P D 50V
C9353	403 176 0209	CERAMIC 0.1U Z 25V
C9354	403 155 1807	CERAMIC 0.01U K 25V
C9355	403 152 9707	ELECT 22U M 6.3V
C9358	403 152 9707	ELECT 22U M 6.3V
C9365	403 176 0209	CERAMIC 0.1U Z 25V
D9301	407 113 5609	DIODE DSH015-TL

LOCATION	PARTS NO.	DESCRIPTION
IC931	409 183 3004	IC CXL1504M-T1
IC932	409 167 7103	IC NJM2107F-TE1
IC934	409 167 7103	IC NJM2107F-TE1
IC935	409 113 8901	IC MN4052BS-T1
IC936	409 167 7103	IC NJM2107F-TE1
IC937	409 167 7103	IC NJM2107F-TE1
IC938	409 167 7103	IC NJM2107F-TE1
IC940	409 167 7103	IC NJM2107F-TE1
IC941	409 183 4407	IC CXA1339R
IC942	409 183 2205	IC CXA1072R
L9301	636 002 8838	RF CHOKE, 22 UH
L9302	636 002 8838	RF CHOKE, 22 UH
L9303	636 002 8838	RF CHOKE, 22 UH
L9304	636 002 8838	RF CHOKE, 22 UH
Q9301	405 077 2207	TR 2SA1622-6-TL
Q9302	405 077 3402	TR 2SC4211-6-TL
Q9303	405 060 7400	TR FMG1-T99
Q9306	405 079 7507	TR IMX3-T109
Q9307	405 077 2207	TR 2SA1622-6-TL
Q9308	405 077 3402	TR 2SC4211-6-TL
Q9309	405 082 9000	TR IMZ2-T99
Q9310	405 082 9000	TR IMZ2-T99
Q9311	405 077 3402	TR 2SC4211-6-TL
Q9312	405 077 3402	TR 2SC4211-6-TL
Q9313	405 077 3402	TR 2SC4211-6-TL
R9301	401 105 8005	MT-GLAZE 1M JA 1/16W
R9302	401 105 0504	MT-GLAZE 1K JA 1/16W
R9303	401 105 0504	MT-GLAZE 1K JA 1/16W
R9304	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9305	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R9306	401 105 5400	MT-GLAZE 47K JA 1/16W
R9307	401 105 3406	MT-GLAZE 27K JA 1/16W
R9308	401 105 0603	MT-GLAZE 10K JA 1/16W
R9309	401 105 0603	MT-GLAZE 10K JA 1/16W
R9310	401 105 0504	MT-GLAZE 1K JA 1/16W
R9311	401 105 5509	MT-GLAZE 470K JA 1/16W
R9312	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9313	401 105 0603	MT-GLAZE 10K JA 1/16W
R9314	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9321	401 105 0603	MT-GLAZE 10K JA 1/16W
R9322	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R9323	401 105 1600	MT-GLAZE 15K JA 1/16W
R9324	401 105 1600	MT-GLAZE 15K JA 1/16W
R9325	401 105 6100	MT-GLAZE 560K JA 1/16W
R9326	401 105 8104	MT-GLAZE 56K JA 1/16W
R9327	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R9328	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R9329	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9330	401 105 8104	MT-GLAZE 56K JA 1/16W
R9331	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9332	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R9333	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9334	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9339	401 105 2201	MT-GLAZE 180K JA 1/16W
R9341	401 105 2201	MT-GLAZE 180K JA 1/16W
R9342	401 105 1709	MT-GLAZE 150K JA 1/16W
R9344	401 105 0504	MT-GLAZE 1K JA 1/16W
R9346	401 105 0504	MT-GLAZE 1K JA 1/16W
R9347	401 105 0702	MT-GLAZE 100K JA 1/16W
R9348	401 105 6100	MT-GLAZE 560K JA 1/16W
R9349	401 105 1600	MT-GLAZE 15K JA 1/16W
R9350	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R9351	401 105 1600	MT-GLAZE 15K JA 1/16W
R9354	401 105 0603	MT-GLAZE 10K JA 1/16W
R9359	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9360	401 105 0603	MT-GLAZE 10K JA 1/16W
R9361	401 105 5509	MT-GLAZE 470K JA 1/16W
R9362	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9363	401 105 0504	MT-GLAZE 1K JA 1/16W
R9364	401 105 5400	MT-GLAZE 47K JA 1/16W
R9365	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R9366	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R9367	401 105 0603	MT-GLAZE 10K JA 1/16W
R9368	401 105 0603	MT-GLAZE 10K JA 1/16W
R9369	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R9370	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9371	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R9372	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R9373	401 105 4700	MT-GLAZE 39K JA 1/16W
R9374	401 105 4700	MT-GLAZE 39K JA 1/16W
R9375	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9376	401 105 4700	MT-GLAZE 39K JA 1/16W
R9377	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9378	401 105 4205	MT-GLAZE 33K JA 1/16W
R9379	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9380	401 105 0504	MT-GLAZE 1K JA 1/16W
R9381	401 105 0603	MT-GLAZE 10K JA 1/16W
R9382	401 105 0504	MT-GLAZE 1K JA 1/16W
R9383	401 105 0504	MT-GLAZE 1K JA 1/16W
R9384	401 105 0504	MT-GLAZE 1K JA 1/16W
R9385	401 105 0603	MT-GLAZE 10K JA 1/16W
R9386	401 105 0504	MT-GLAZE 1K JA 1/16W
R9387	401 105 0504	MT-GLAZE 1K JA 1/16W
R9388	401 105 0504	MT-GLAZE 1K JA 1/16W
R9389	401 105 0603	MT-GLAZE 10K JA 1/16W
R9390	401 105 0504	MT-GLAZE 1K JA 1/16W
R9392	401 105 0603	MT-GLAZE 10K JA 1/16W
R9393	401 105 4700	MT-GLAZE 39K JA 1/16W
R9394	401 105 2102	MT-GLAZE 18K JA 1/16W
R9395	401 105 4700	MT-GLAZE 39K JA 1/16W
R9396	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9397	401 105 4700	MT-GLAZE 39K JA 1/16W
R9398	401 105 4700	MT-GLAZE 39K JA 1/16W
R9399	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9400	401 105 4700	MT-GLAZE 39K JA 1/16W
R9401	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R9402	401 105 0603	MT-GLAZE 10K JA 1/16W
R9403	401 105 5202	MT-GLAZE 470 JA 1/16W
R9405	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9406	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9407	401 105 4700	MT-GLAZE 39K JA 1/16W
R9408	401 105 4700	MT-GLAZE 39K JA 1/16W
R9409	401 105 4700	MT-GLAZE 39K JA 1/16W
R9412	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9415	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R9416	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9419	401 105 0504	MT-GLAZE 1K JA 1/16W
R9421	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9422	401 105 1204	MT-GLAZE 120K JA 1/16W
R9423	401 113 8608	MT-GLAZE 110K JA 1/16W
R9424	401 105 8104	MT-GLAZE 56K JA 1/16W
R9425	401 105 8104	MT-GLAZE 56K JA 1/16W
R9426	401 105 4700	MT-GLAZE 39K JA 1/16W
R9427	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9432	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9433	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9436	401 105 5400	MT-GLAZE 47K JA 1/16W
R9437	401 105 0603	MT-GLAZE 10K JA 1/16W
R9438	401 105 0603	MT-GLAZE 10K JA 1/16W
R9439	401 105 4205	MT-GLAZE 33K JA 1/16W
R9444	401 105 2904	MT-GLAZE 22K JA 1/16W
R9445	401 105 4700	MT-GLAZE 39K JA 1/16W
R9451	401 105 0702	MT-GLAZE 100K JA 1/16W
R9452	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9461	401 105 7909	MT-GLAZE 0 ZA 1/16W

LOCATION	PARTS NO.	DESCRIPTION
R9462	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9495	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9496	401 105 0504	MT-GLAZE 1K JA 1/16W
R9497	401 105 0504	MT-GLAZE 1K JA 1/16W
R9498	401 105 8104	MT-GLAZE 56K JA 1/16W
R9499	401 105 8104	MT-GLAZE 56K JA 1/16W
T9301	636 003 4488	HF COIL TRANS
T9302	636 027 3856	FILTER.5.3MHZ
T9303	636 021 3371	FILTER
VR931	636 019 8074	SVR 47K OHM
VR932	636 019 8074	SVR 47K OHM
VR933	636 019 7893	SVR 1K OHM
VR934	636 019 7893	SVR 1K OHM
VR936	636 019 8005	SVR 220K OHM
VR937	636 019 8005	SVR 220K OHM
VR939	636 019 8074	SVR 47K OHM
VR940	636 019 8074	SVR 47K OHM
VR941	636 019 8074	SVR 47K OHM
VR942	636 019 8074	SVR 47K OHM
VR943	636 019 8074	SVR 47K OHM
VR947	636 019 8074	SVR 47K OHM
VR948	636 019 8074	SVR 47K OHM
VR950	636 019 8074	SVR 47K OHM
VR952	636 019 8074	SVR 47K OHM
VR953	636 019 8074	SVR 47K OHM
VR954	636 019 7909	SVR 10K OHM
VR955	636 019 7909	SVR 10K OHM

CŌMPL,VF-1

COMPL.NO. 636 026 8036

C0001	403 135 6808	ELECT 1U M 50V
C0002	403 073 1200	CERAMIC 0.033U K 50V
C0003	403 093 4106	OS-SOLID 15U M 6.3V
C0004	403 067 9809	CERAMIC 0.1U K 25V
C0005	403 134 8407	ELECT 220U M 6.3V
C0006	403 167 6005	CERAMIC 0.22U M 16V
C0008	403 022 8205	CERAMIC 33P J 50V
C0009	403 067 9809	CERAMIC 0.1U K 25V
C0010	403 134 9008	ELECT 10U M 16V
C0011	403 185 8609	CERAMIC 2200P K 100V
C0012	403 185 7206	TA-SOLID 68U M 6.3V
C0013	403 159 8109	ELECT 100U M 6.3V
C0014 ⚠	403 167 6302	CERAMIC 2200P K 1K
C0015	403 167 6203	CERAMIC 0.022U K 100V
C0016 ⚠	403 167 6302	CERAMIC 2200P K 1K
C0017	403 167 7002	ELECT 4.7U M 50V
C0018	403 093 7206	OS-SOLID 22U M 10V
D0001	407 069 4909	DIODE DSB010
D0003	407 066 8207	DIODE SB02-09CP
D0004	407 101 3303	DIODE ESJ04-02
OR	407 124 9009	DIODE ERA34-01
D0005	407 101 3303	DIODE ESJ04-02
OR	407 124 9009	DIODE ERA34-01
IC001	409 174 0708	IC AN2512S-(T1)
L0002 ⚠	636 024 3057	COIL,LINEARITY
L0003 ⚠	636 024 3019	COIL,INDUCTOR 150UH
Q0001 ⚠	405 047 3500	TR 2SC3646-S-TD
Q0002	405 043 8905	TR 2SA1257-G5
Q0003	405 092 4101	TR 2SC4081-R-T106
Q0004	405 092 4200	TR 2SA1576-R-T106
R0001	401 037 5707	MT-GLAZE 100K JA 1/10W
R0002	401 038 7403	MT-GLAZE 510K JA 1/10W
R0003	401 037 7909	MT-GLAZE 1.5K JA 1/10W
R0004	401 037 5202	MT-GLAZE 100 JA 1/10W
R0005	401 038 6000	MT-GLAZE 43K JA 1/10W
R0006	401 090 2002	MT-GLAZE 3.9 JA 1/10W
R0007	401 037 5400	MT-GLAZE 1K JA 1/10W
R0008	401 037 5400	MT-GLAZE 1K JA 1/10W
R0009	401 037 8203	MT-GLAZE 1.5M JA 1/10W
R0010	401 038 9209	MT-GLAZE 6.8K JA 1/10W
R0011	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R0012	401 039 0403	MT-GLAZE 8.2K JA 1/10W
R0013	401 038 3900	MT-GLAZE 3.3M JA 1/10W
R0014	401 037 5806	MT-GLAZE 1M JA 1/10W
R0015	401 037 8203	MT-GLAZE 1.5M JA 1/10W
R0016 ⚠	401 037 6902	MT-GLAZE 120K JA 1/10W
R0017	401 037 5806	MT-GLAZE 1M JA 1/10W
R0018	401 037 5400	MT-GLAZE 1K JA 1/10W
T0001 ⚠	636 026 8043	TRANS,FLYBACK
VR001	636 000 3859	VR,33K OHM
VR002	636 024 3064	VR,CEMI-220 OHM
VR003	636 024 3071	VR,CEMI-33K OHM
VR004	636 000 3941	VR,1M OHM
VR005	636 000 3927	VR,470K OHM

CŌMPL,TC-1

COMPL.NO. 636 027 7762

C9502	403 157 6602	CERAMIC 470P K 50V
C9503	403 155 1807	CERAMIC 0.01U K 25V
C9504	403 169 2807	CERAMIC 330P J 50V
C9505	403 138 9608	TA-SOLID 22U M 6.3V
C9506	403 157 2901	CERAMIC 47P J 50V
C9507	403 157 2901	CERAMIC 47P J 50V
C9508	403 113 3805	CERAMIC 1000P K 50V
C9509	403 113 3805	CERAMIC 1000P K 50V
C9510	403 157 4202	CERAMIC 220P J 50V
C9511	403 113 3805	CERAMIC 1000P K 50V
C9512	403 113 3805	CERAMIC 1000P K 50V
C9513	403 089 6206	TA-SOLID 4.7U M 4V
C9514	403 157 7302	CERAMIC 6800P K 50V
C9516	403 176 2302	CERAMIC 0.033U Z 25V
C9518	403 114 5600	TA-SOLID 3.3U M 6.3V
C9519	403 155 2101	CERAMIC 1500P K 50V
C9520	403 153 1205	ELECT 47U M 16V
C9521	403 176 0209	CERAMIC 0.1U Z 25V
C9522	403 176 0209	CERAMIC 0.1U Z 25V
C9523	403 089 6206	TA-SOLID 4.7U M 4V
C9524	403 114 5402	TA-SOLID 2.2U M 10V
C9525	403 090 7308	TA-SOLID 4.7U M 10V
C9526	403 152 9608	ELECT 47U M 4V
C9527	403 114 5600	TA-SOLID 3.3U M 6.3V
C9528	403 153 1205	ELECT 47U M 16V
C9529	403 091 0407	TA-SOLID 1U M 16V
C9530	403 091 0407	TA-SOLID 1U M 16V
C9534	403 114 5600	TA-SOLID 3.3U M 6.3V
C9535	403 164 0204	CERAMIC 0.1U Z 25V
C9536	403 158 8506	TA-SOLID 4.7U M 16V
C9537	403 114 5600	TA-SOLID 3.3U M 6.3V
C9538	403 090 7308	TA-SOLID 4.7U M 10V
C9539	403 089 4806	TA-SOLID 10U M 4V
D9501	407 113 5609	DIODE DSH015-TL
D9504	407 057 8902	ZENER DIODE RD8.2MB2
D9505	407 057 8902	ZENER DIODE RD8.2MB2
D9506	407 106 1601	DEODE DCG015-TL
D9507	407 113 5609	DIODE DSH015-TL
D9509	407 113 5609	DIODE DSH015-TL

LOCATION	PARTS NO.	DESCRIPTION
F9501 ⚠	404 040 5504	CERAMIC 470P M 100V
F9502 ⚠	404 040 5504	CERAMIC 470P M 100V
F9503 ⚠	404 040 5504	CERAMIC 470P M 100V
F9504 ⚠	404 040 5306	CERAMIC 47P M 100V
IC951	410 070 4103	IC N83C51FA R7572
IC952	409 152 6906	IC LC9123A-163
IC953	409 167 7806	IC LC89066M-T1
IC955	409 180 1300	IC SC14S69FEL
OR	409 155 7405	IC TC4S69F(TE85L)
IC956	409 180 1300	IC SC14S69FEL
OR	409 155 7405	IC TC4S69F(TE85L)
IC957	409 111 6008	IC BA225AF-T1
IC958	409 018 3704	IC LA6358M-T1
IC959	410 023 8806	IC MB3763PF-G-BND-TF
IC962	409 176 1208	IC TK10500MT1
IC963	409 018 4008	IC LA6393M-T1
IC965	409 167 7103	IC NJM2107F-TE1
IC966	409 167 7103	IC NJM2107F-TE1
L9502	636 002 8852	RF CHOKE,100 UH
L9503	636 002 8838	RF CHOKE, 22 UH
Q9501	405 077 3402	TR 2SC4211-6-TL
Q9502	405 074 0701	TR IMX2-109
Q9503	405 077 3402	TR 2SC4211-6-TL
Q9504	405 077 2207	TR 2SA1622-6-TL
Q9505	405 077 3402	TR 2SC4211-6-TL
Q9506	405 077 2207	TR 2SA1622-6-TL
Q9508	405 078 7003	TR 2SC4397-TL
Q9509	405 077 3402	TR 2SC4211-6-TL
Q9510	405 096 6606	TR HN1C01FGR(TE85L)
Q9511	405 074 0701	TR IMX2-109
Q9512	405 074 0701	TR IMX2-109
Q9513	405 078 5801	TR 2SA1676-TL
Q9515	405 077 2207	TR 2SA1622-6-TL
Q9516	405 077 3402	TR 2SC4211-6-TL
R9503	401 105 0702	MT-GLAZE 100K JA 1/16W
R9504	401 105 0702	MT-GLAZE 100K JA 1/16W
R9505	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R9506	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R9507	401 105 0504	MT-GLAZE 1K JA 1/16W
R9508	401 105 3208	MT-GLAZE 270 JA 1/16W
R9509	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R9510	401 105 4007	MT-GLAZE 330 JA 1/16W
R9511	401 105 0504	MT-GLAZE 1K JA 1/16W
R9513	401 105 0603	MT-GLAZE 10K JA 1/16W
R9514	401 113 6406	MT-GLAZE 5.1K JA 1/16W
R9515	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R9516	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R9517	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R9518	401 105 3000	MT-GLAZE 220K JA 1/16W
R9519	401 113 3207	MT-GLAZE 4.7 KA 1/16W
R9520	401 105 8203	MT-GLAZE 68K JA 1/16W
R9521	401 105 5400	MT-GLAZE 47K JA 1/16W
R9522	401 105 5400	MT-GLAZE 47K JA 1/16W
R9523	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R9524	401 105 0504	MT-GLAZE 1K JA 1/16W
R9525	401 105 0603	MT-GLAZE 10K JA 1/16W
R9526	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R9527	401 105 0603	MT-GLAZE 10K JA 1/16W
R9528	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R9529	401 105 0504	MT-GLAZE 1K JA 1/16W
R9532	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9533	401 105 0603	MT-GLAZE 10K JA 1/16W
R9535	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R9536	401 105 1600	MT-GLAZE 15K JA 1/16W
R9537	401 105 6605	MT-GLAZE 6.8K JA 1/16W

LOCATION	PARTS NO.	DESCRIPTION
R9538	401 105 4304	MT-GLAZE 330K JA 1/16W
R9540	401 105 5509	MT-GLAZE 470K JA 1/16W
R9541	401 105 0702	MT-GLAZE 100K JA 1/16W
R9542	401 105 7602	MT-GLAZE 820K JA 1/16W
R9544	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R9545	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9546	401 105 0306	MT-GLAZE 10 JA 1/16W
R9547	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R9548	401 105 0504	MT-GLAZE 1K JA 1/16W
R9549	401 105 0603	MT-GLAZE 10K JA 1/16W
R9550	401 105 0603	MT-GLAZE 10K JA 1/16W
R9551	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9552	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9554	401 105 6704	MT-GLAZE 680K JA 1/16W
R9555	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9556	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9557	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R9558	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9559	401 105 7503	MT-GLAZE 82K JA 1/16W
R9560	401 105 1600	MT-GLAZE 15K JA 1/16W
R9561	401 105 1600	MT-GLAZE 15K JA 1/16W
R9562	401 105 7503	MT-GLAZE 82K JA 1/16W
R9563	401 105 1709	MT-GLAZE 150K JA 1/16W
R9564	401 105 4700	MT-GLAZE 39K JA 1/16W
R9565	401 105 0603	MT-GLAZE 10K JA 1/16W
R9566	401 105 8104	MT-GLAZE 56K JA 1/16W
R9567	401 105 8104	MT-GLAZE 56K JA 1/16W
R9568	401 105 5400	MT-GLAZE 47K JA 1/16W
R9569	401 105 0603	MT-GLAZE 10K JA 1/16W
R9570	401 105 1600	MT-GLAZE 15K JA 1/16W
R9571	401 105 8104	MT-GLAZE 56K JA 1/16W
R9572	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9573	401 105 1600	MT-GLAZE 15K JA 1/16W
R9574	401 105 5509	MT-GLAZE 470K JA 1/16W
R9575	401 105 3000	MT-GLAZE 220K JA 1/16W
R9576	401 105 0504	MT-GLAZE 1K JA 1/16W
R9577	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R9578	401 105 0603	MT-GLAZE 10K JA 1/16W
R9579	401 105 0603	MT-GLAZE 10K JA 1/16W
R9582	401 105 0306	MT-GLAZE 10 JA 1/16W
R9592	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9594	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9596	401 105 0603	MT-GLAZE 10K JA 1/16W
R9597	401 105 0603	MT-GLAZE 10K JA 1/16W
R9601	401 105 0603	MT-GLAZE 10K JA 1/16W
R9602	401 105 0603	MT-GLAZE 10K JA 1/16W
R9603	401 105 2904	MT-GLAZE 22K JA 1/16W
R9604	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R9605	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R9606	401 105 0603	MT-GLAZE 10K JA 1/16W
R9608	401 105 0603	MT-GLAZE 10K JA 1/16W
R9611	401 105 7909	MT-GLAZE 0 ZA 1/16W
R9615	401 105 3307	MT-GLAZE 2.7K JA 1/16W

COMPL,TC-5

COMPL.NO. 636 027 7724

D9801	407 004 0201	DIODE DCA015
R9801	401 105 0603	MT-GLAZE 10K JA 1/16W
R9802	401 105 0603	MT-GLAZE 10K JA 1/16W
R9803	401 105 0603	MT-GLAZE 10K JA 1/16W
R9804	401 105 0603	MT-GLAZE 10K JA 1/16W
R9805	401 105 0603	MT-GLAZE 10K JA 1/16W
R9806	401 105 0603	MT-GLAZE 10K JA 1/16W
R9807	401 105 2706	MT-GLAZE 220 JA 1/16W
S9801	636 025 2950	SW,PUSH

LOCATION	PARTS NO.	DESCRIPTION
S9802	636 026 9286	SW.SLIDE
S9803	636 025 2950	SW.PUSH
S9805	636 025 2950	SW.PUSH
S9806	636 025 2943	SW.SLIDE

Rechnungs-Nr.: 472951 / 011
Art.-Nr.: P L VM-D6P
PARTS LIST

Lagerort: KSO 19 BO 4

Menge : 1

SANYO

SANYO Electric Co., Ltd.
Osaka, Japan

Nov./'89/1800 NS Printed in Japan

SCHEMATIC DIAGRAM
&
PRINTED WIRING BOARD

MODEL VM-D6P VM-D16P

CONTENTS

OVERALL WIRING DIAGRAM, SEMICONDUCTORS Ⓐ

P.C.B. CA-1 Ⓑ

P.C.B. CA-2
P.C.B. AD-1
P.C.B. TB-1
P.C.B. TB-2 Ⓒ

P.C.B. CA-3 Ⓓ

P.C.B. SV-1 Ⓔ

P.C.B. VD-1 Ⓕ Ⓖ

P.C.B. VD-2
P.C.B. DM-1 Ⓗ

P.C.B. DM-2 Ⓘ

P.C.B. SY-1 Ⓙ

P.C.B. SY-2 Ⓚ

P.C.B. TC-1 Ⓛ

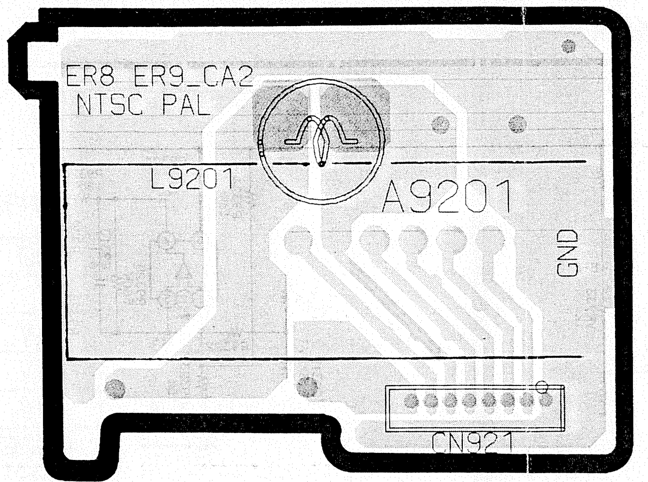
P.C.B. TC-5 Ⓜ

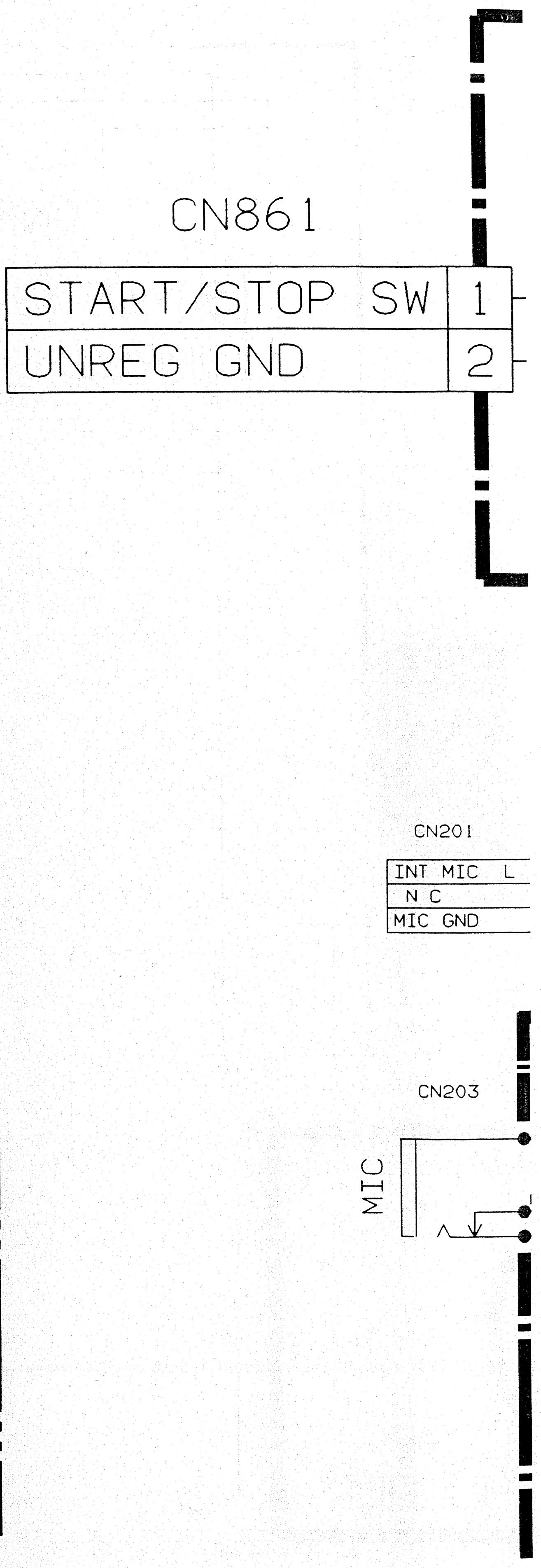
P.C.B. VF-1 Ⓝ

- ——: +B bus.
- Voltage values: Relative to ground, measured with a DC digital multimeter
- The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.
- All resistors are in ohms.
- All capacitors are in μF (p: pF).
- All coils are in mH (μ: μH).
- Cautions
  - Pattern face side (Solder Side) : Parts on the pattern face side seen from the pattern face are indicated.
  - Parts face side (Component Side) : Parts on the parts face side seen from the pattern face are indicated.

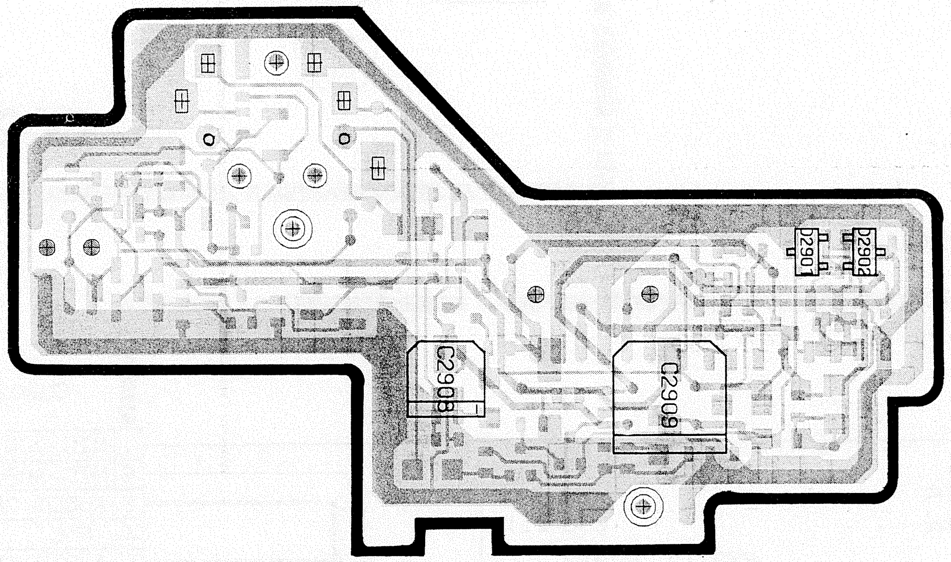
6

CA-2 BOARD SIDE B

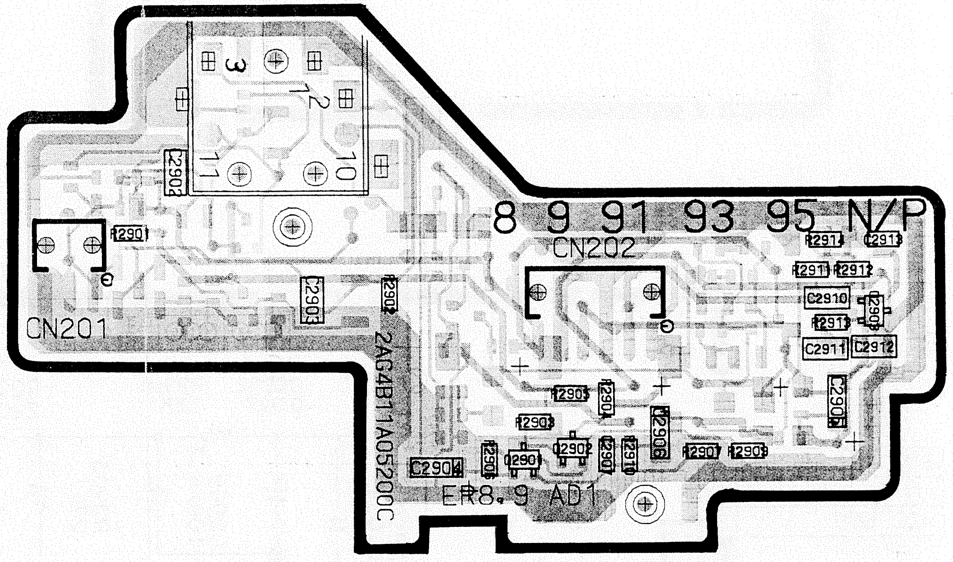

ER8 ER9_CA2
NTSC PAL
L9201
A9201
GND
CN921


CN861
START/STOP SW 1
UNREG GND 2
CN201
INT MIC L
N C
MIC GND
CN203
MIC

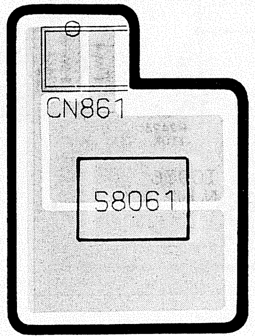
AD-1 BOARD SIDE A


C2908
C2909
C2901
C2902

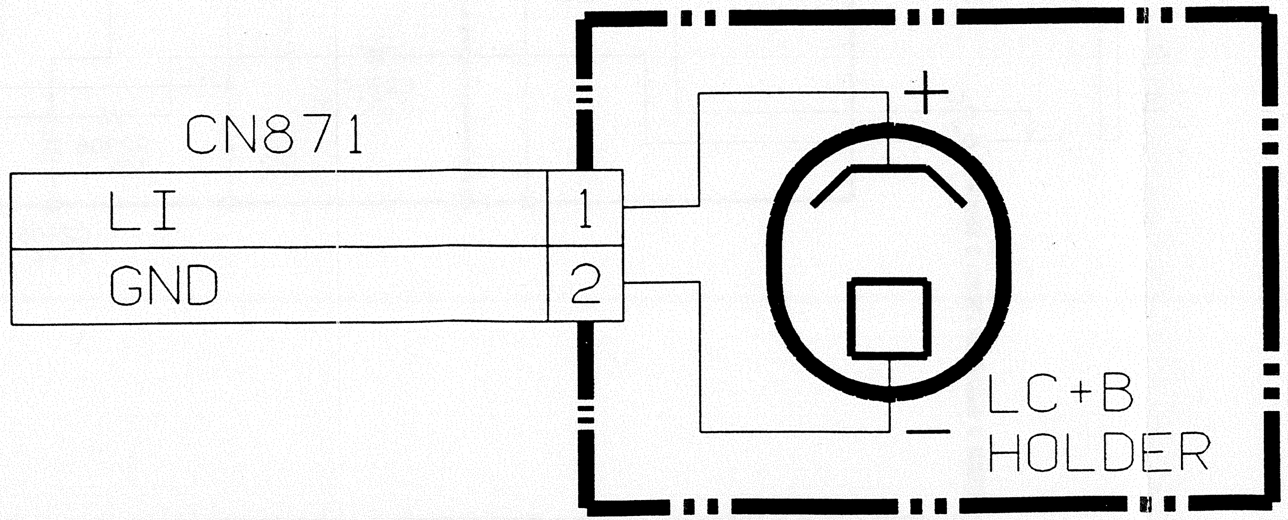
AD-1 BOARD SIDE B


3
1
2
11
10
C2902
C2901
C2903
C2902
CN201
8 9 91 93 95 N/P
CN202
2AG4B1A05200C
C2904
ER8,9 AD1
C2910
C2911
C2912
C2906

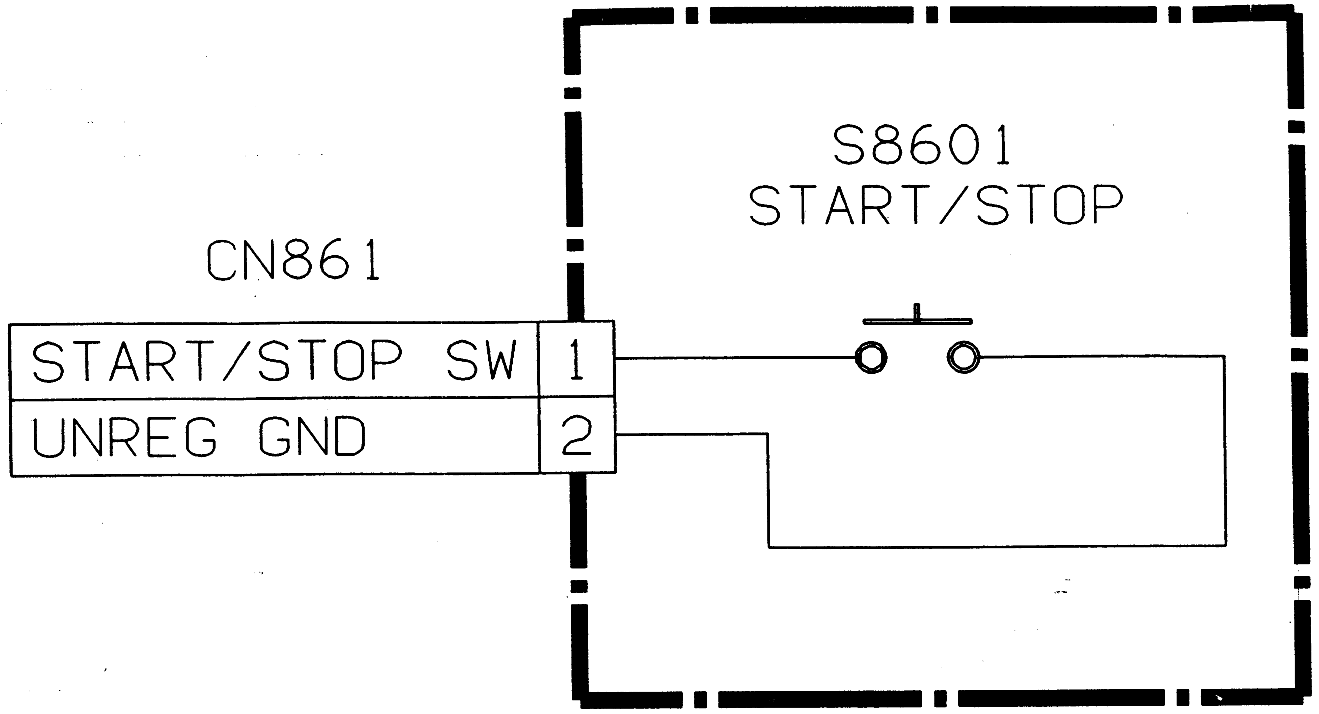
TB-1 BOARD SIDE B


CN861
S8061

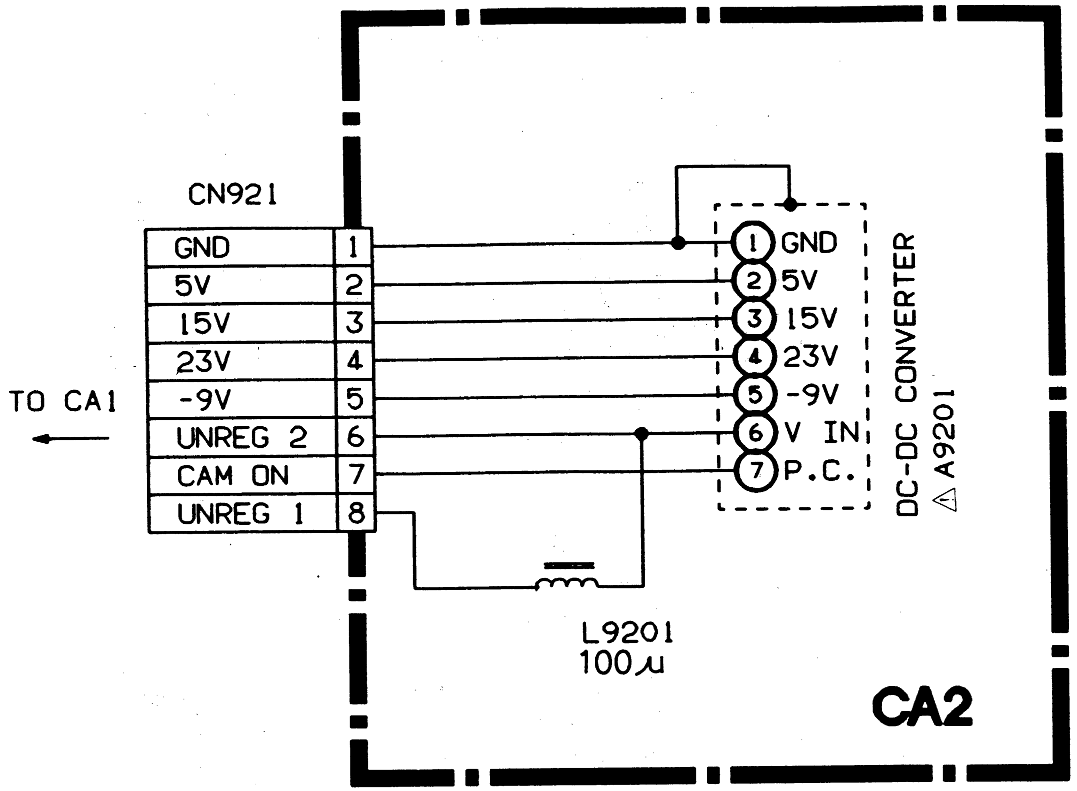
TB-2 CIRCUIT

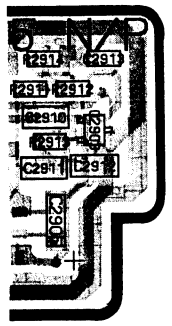

CN871
LI 1
GND 2
+
−
LC+B
HOLDER

TB-1 CIRCUIT

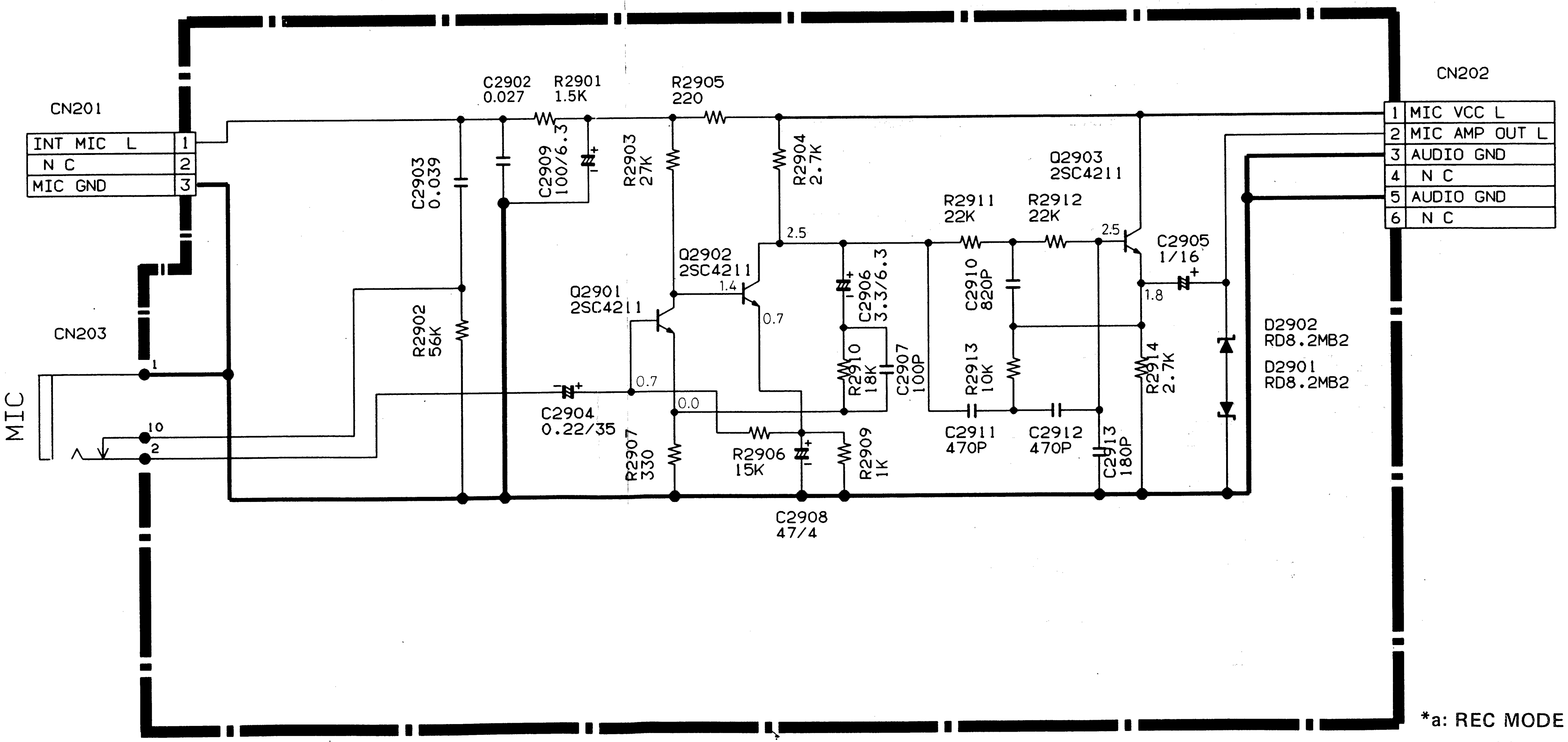

S8601
START/STOP
CN861
START/STOP SW 1
UNREG GND 2

CA-2 CIRCUIT

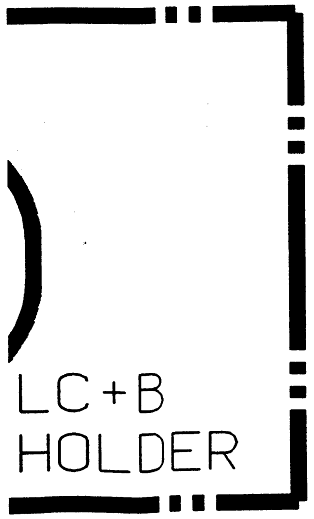

CN921
GND 1
5V 2
15V 3
23V 4
-9V 5
UNREG 2 6
CAM ON 7
UNREG 1 8
TO CA1
1 GND
2 5V
3 15V
4 23V
5 -9V
6 V IN
7 P.C.
DC-DC CONVERTER
⚠ A9201
L9201
100µ
CA2



AD-1 CIRCUIT


CN201
INT MIC L 1
N C 2
MIC GND 3
CN203
MIC
1
10
2
C2902 0.027
R2901 1.5K
R2905 220
C2903 0.039
C2909 100/6.3
R2903 27K
R2904 2.7K
Q2902 2SC4211
Q2901 2SC4211
Q2903 2SC4211
R2911 22K
R2912 22K
C2905 1/16
R2902 56K
C2906 3.3/6.3
R2910 18K
C2907 100P
C2910 820P
R2913 10K
R2914 2.7K
D2902 RD8.2MB2
D2901 RD8.2MB2
C2904 0.22/35
R2907 330
R2906 15K
R2909 1K
C2908 47/4
C2911 470P
C2912 470P
C2913 180P
2.5
2.5
1.4
0.7
0.7
0.0
1.8
CN202
1 MIC VCC L
2 MIC AMP OUT L
3 AUDIO GND
4 N C
5 AUDIO GND
6 N C

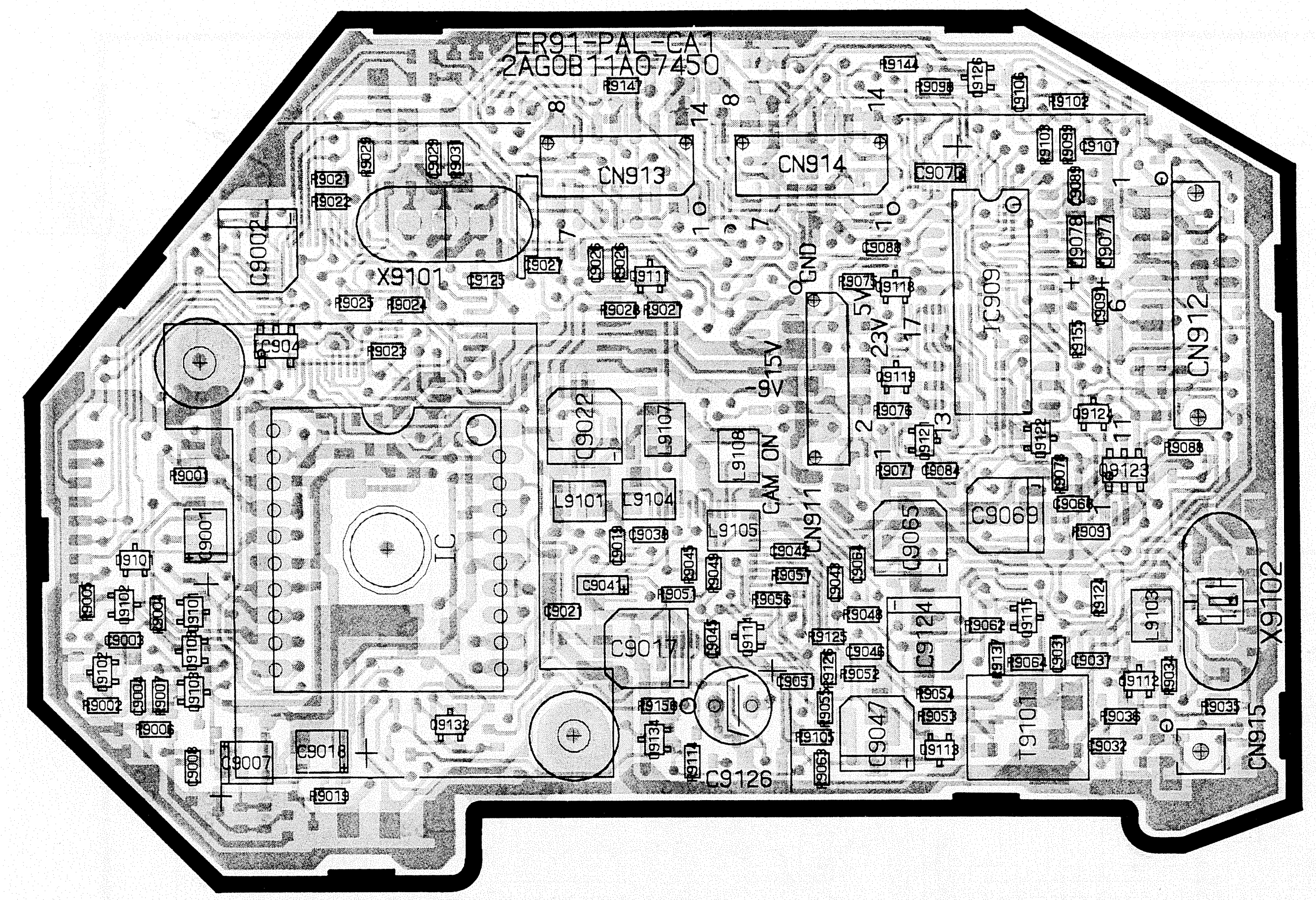
©



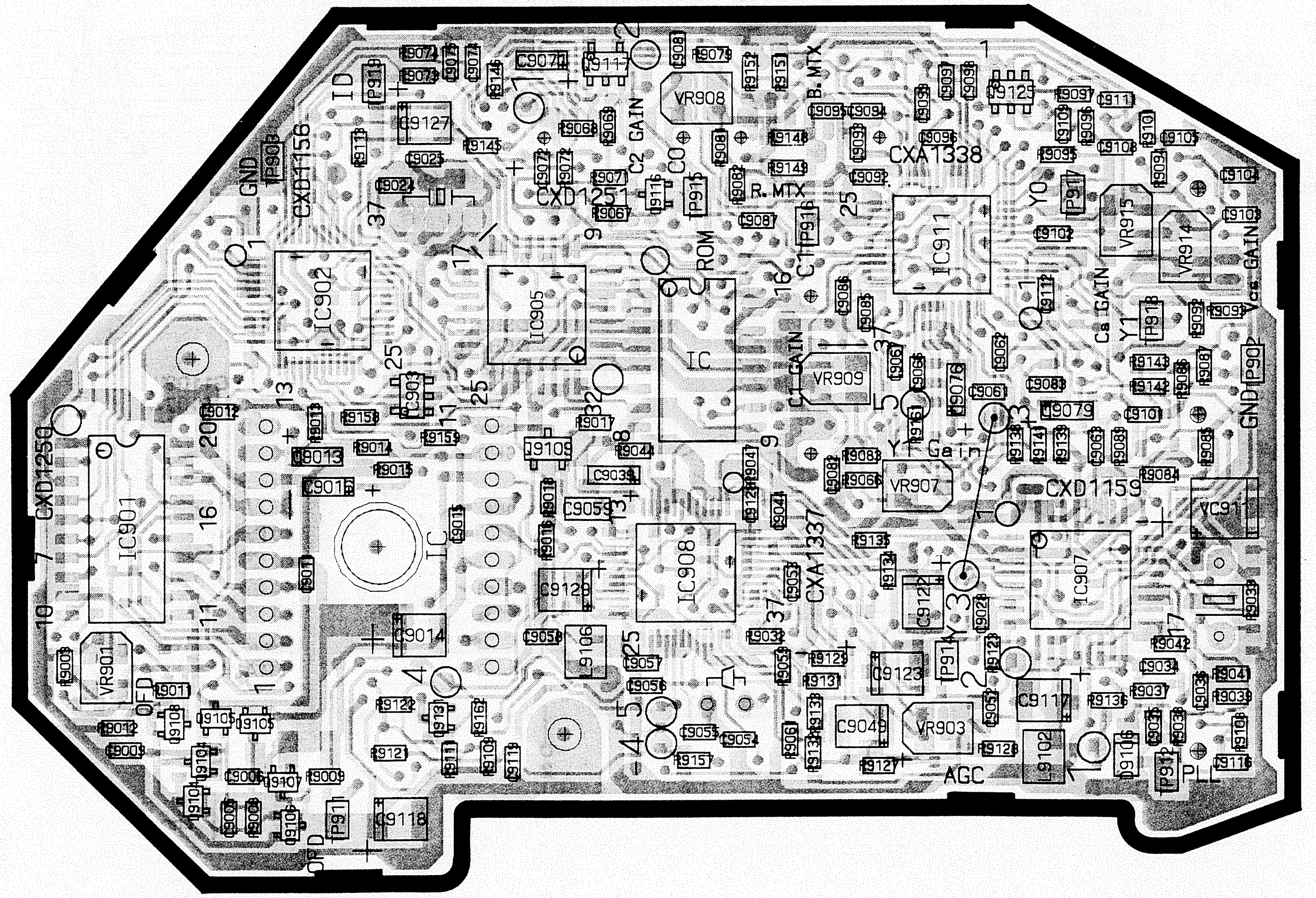
*a: REC MODE

12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

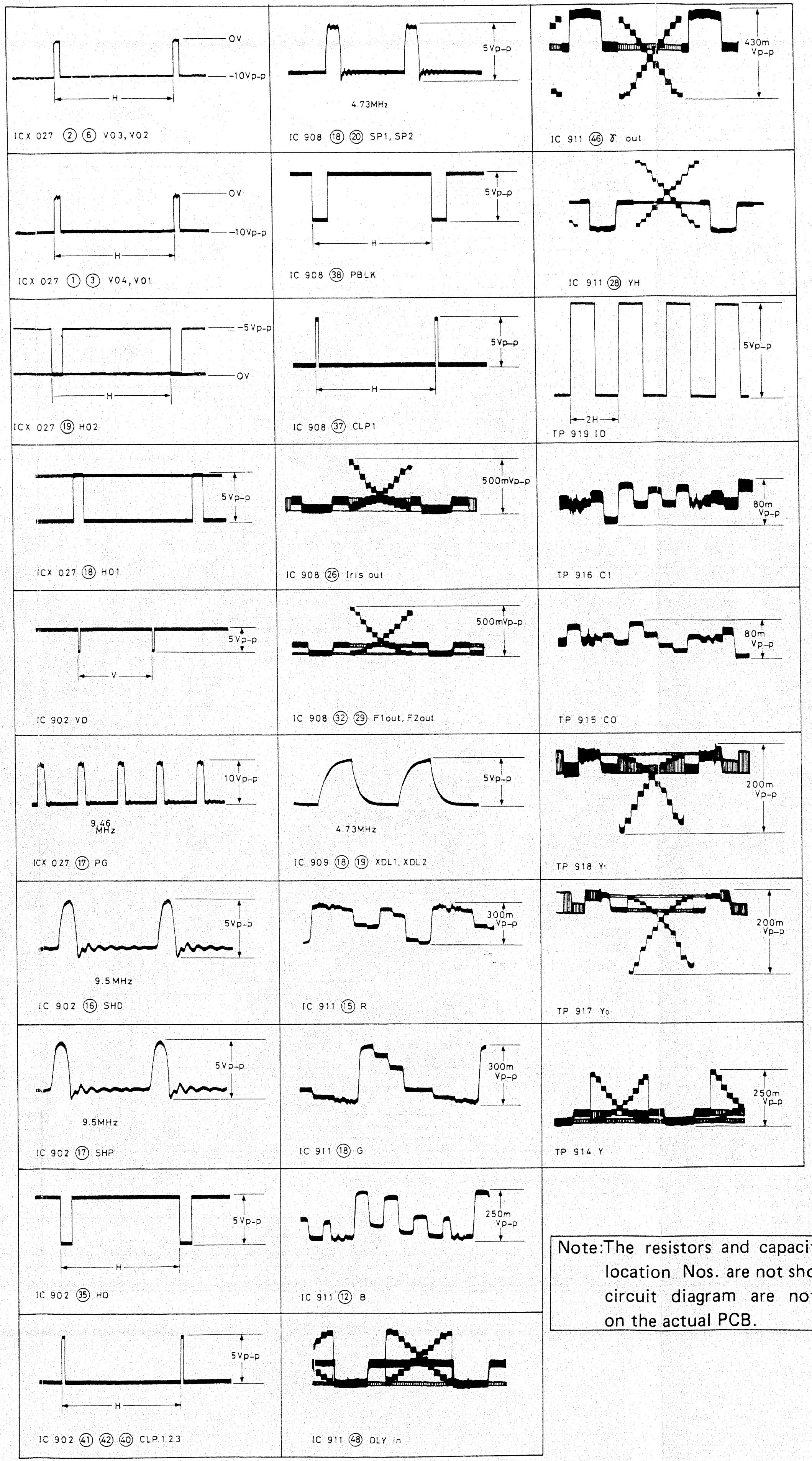
CA-1 BOARD SIDE A


ER91-PAL-CA1
2AG0B11A07450
CN913
CN914
CN912
CN915
IC909
IC
X9101
X9102
L9101
L9104
L9105
L9108
C9017
C9069
C9126
GND
5V
23V
15V
-9V
CAM ON

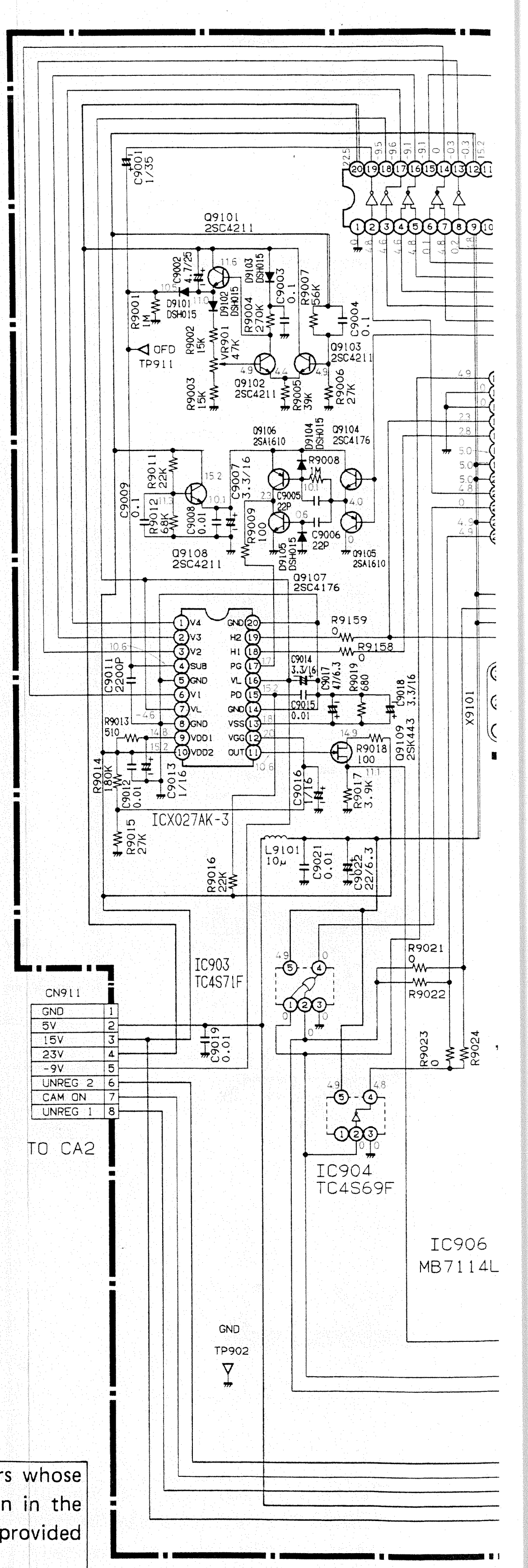
CA-1 BOARD SIDE B


CXD1156
CXD1251
CXD1250
CXD1159
CXA1338
CXA1337
IC901
IC902
IC905
IC907
IC908
IC911
VR901
VR903
VR907
VR908
VR909
VR914
VR915
ROM
AGC
GND
ID
C2 GAIN
R. MTX
B. MTX
Y Gain
Cs GAIN
C1 GAIN

CA-1 BOARD (CAMERA)

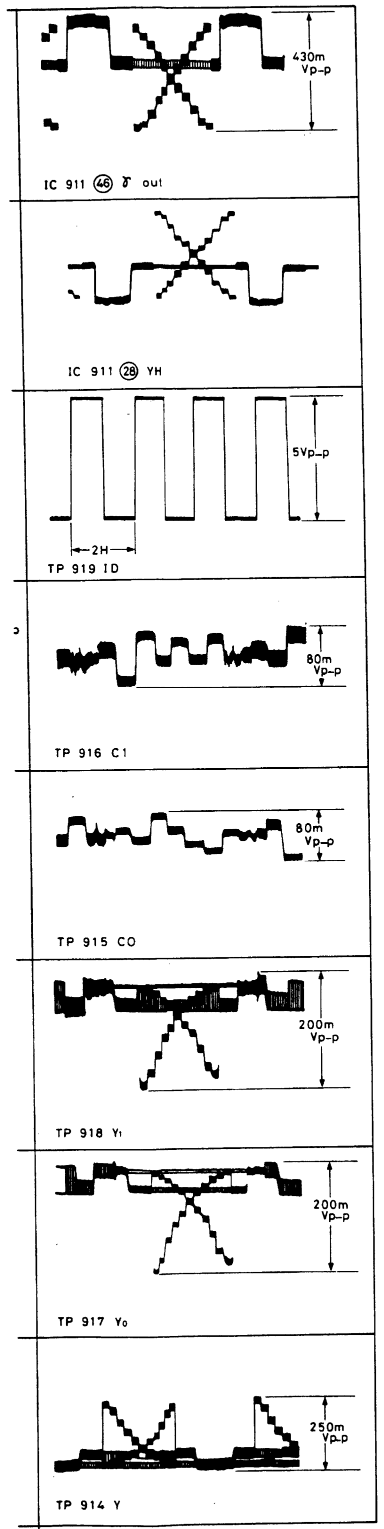


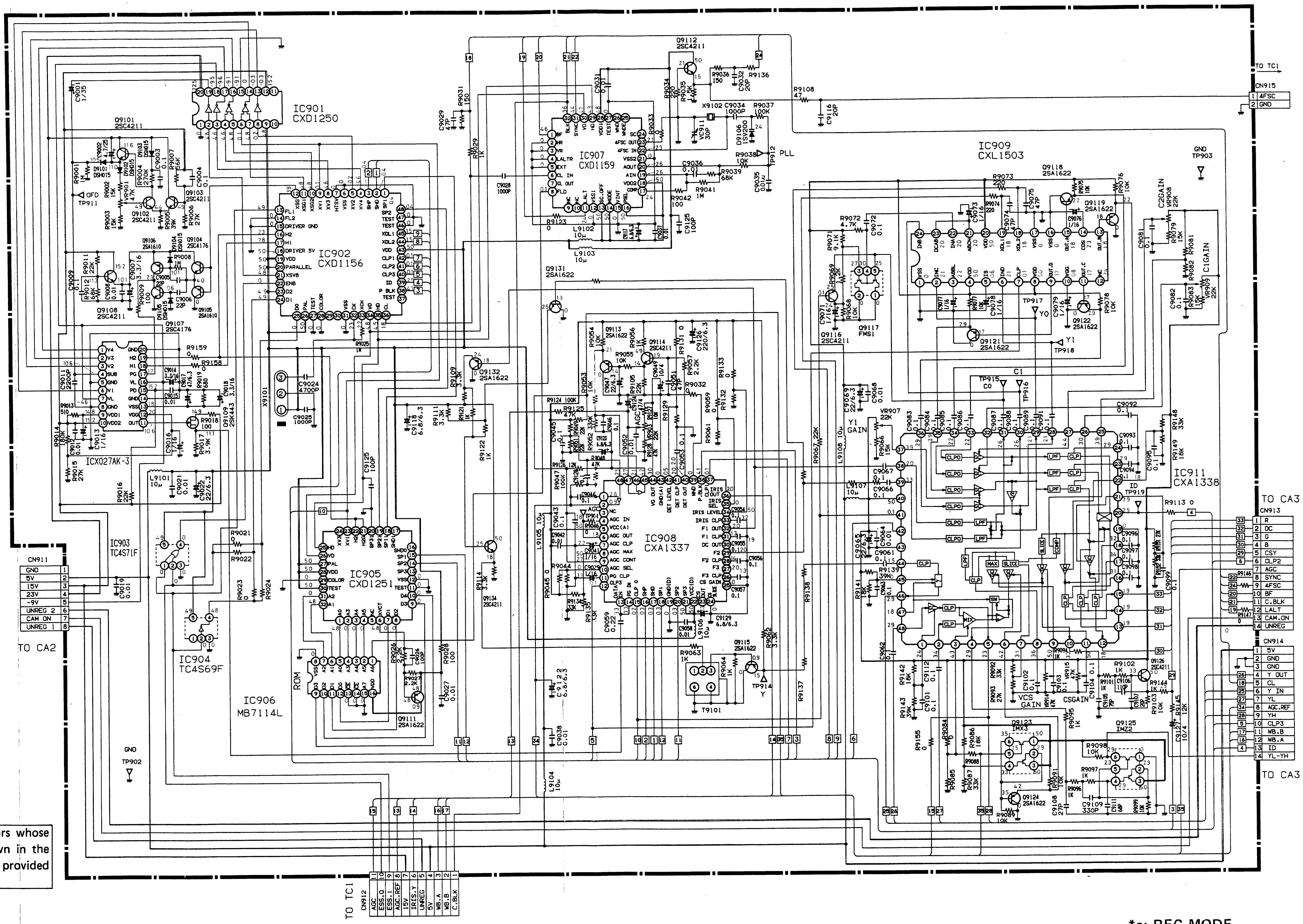
Note:The resistors and capacitors whose location Nos. are not shown in the circuit diagram are not provided on the actual PCB.


Q9101 2SC4211
Q9102 2SC4211
Q9103 2SC4211
Q9104 2SC4176
Q9105 2SA1610
Q9106 2SA1610
Q9107 2SC4176
Q9108 2SC4211
Q9109 2SK443
D9101 DS9015
D9102 DS9015
D9103 DS9015
QFD TP911
ICX027AK-3
L9101 10μ
CN911
GND
5V
15V
23V
-9V
UNREG 2
CAM ON
UNREG 1
TO CA2
IC903 TC4S71F
IC904 TC4S69F
IC906 MB7114L
GND TP902
X9101

K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

CA-1 CIRCUIT



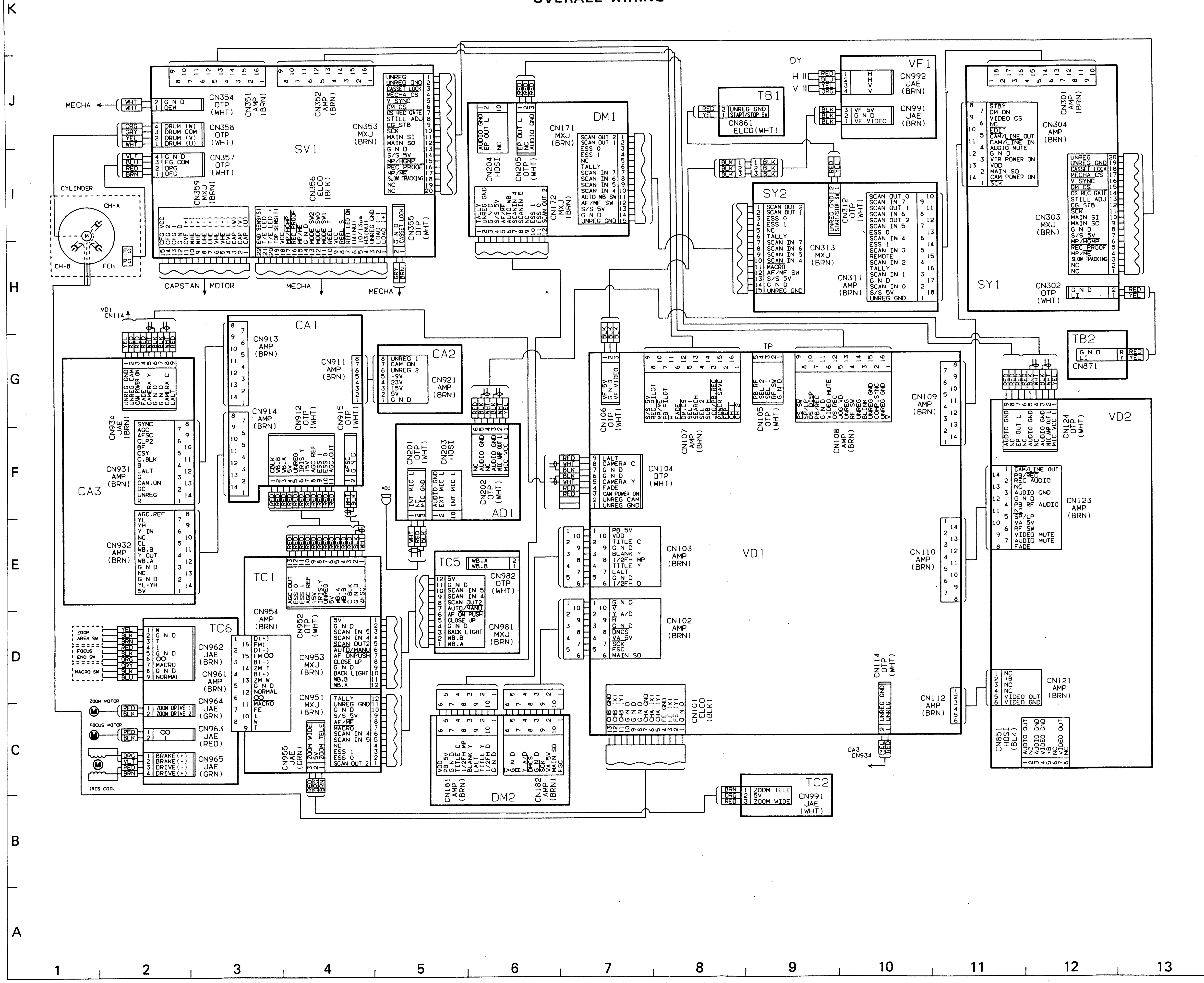

IC901 CXD1250
IC902 CXD1156
IC903 TC4S71F
IC904 TC4S69F
IC905 CXD1251
IC906 MB7114L
ROM
IC907 CXD1159
IC908 CXA1337
IC909 CXL1503
IC911 CXA1338
ICX027AK-3
Q9101 2SC4211
Q9102 2SC4211
Q9103 2SC4211
Q9104 2SC4176
Q9105 2SA1610
Q9106 2SA1610
Q9107 2SC4176
Q9108 2SC4211
Q9109 2SK443
Q9111 2SA1622
Q9112 2SC4211
Q9113 2SA1622
Q9114 2SC4211
Q9115 2SA1622
Q9116 2SC4211
Q9117 FMS1
Q9118 2SA1622
Q9119 2SA1622
Q9121 2SA1622
Q9122 2SA1622
Q9123 IMX3
Q9124 2SA1622
Q9125 IMZ2
Q9126 2SC4211
Q9131 2SA1622
Q9132 2SA1622
Q9134 2SC4211
X9101
X9102
T9101
PLL
Y1 GAIN
VCS GAIN
CSGAIN
C2GAIN
C1GAIN
TP902 GND
TP903 GND
TP911 GFD
TP912
TP914 Y
TP915 CO
TP916
TP917 Y0
TP918 Y1
TP919 ID
C1
CN911
GND
5V
15V
23V
-9V
UNREG 2
CAM ON
UNREG 1
TO CA2
CN912
AGC
ESS.O
ESS.I
AGC.REF
15V
IRIS.Y
UNREG
5V
WB.A
WB.B
C.BLK
TO TC1
CN915
4FSC
GND
TO TC1
CN913
R
DC
G
B
CSY
CLP2
AGC
SYNC
4FSC
BF
C.BLK
LALT
CAM.ON
UNREG
TO CA3
CN914
5V
GND
GND
Y OUT
CL
Y IN
YL
AGC.REF
YH
CLP3
WB.B
WB.A
ID
YL-YH
TO CA3
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

Note:The resistors and capacitors whose location Nos. are not shown in the circuit diagram are not provided on the actual PCB.

*a: REC MODE

6

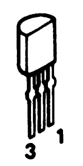
OVERALL WIRING



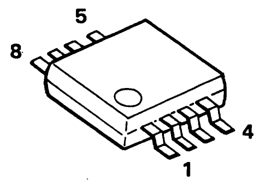
K
J
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
MECHA
CYLINDER
CH-A
CH-B
FEH
FG
PG
CAPSTAN MOTOR
MECHA
SV1
CN354 OTP (WHT)
CN358 OTP (WHT)
CN357 OTP (WHT)
CN359 MXJ (BRN)
CN351 AMP (BRN)
CN352 AMP (BRN)
CN353 MXJ (BRN)
CN356 ELCO (BLK)
CN355 OTP (WHT)
DM1
CN171 MXJ (BRN)
CN204 HOSI
CN205 OTP (WHT)
CN172 MXJ (BRN)
TB1
CN861 ELCO(WHT)
DY
VF1
CN992 JAE (BRN)
CN991 JAE (BRN)
SY2
CN313 MXJ (BRN)
CN312 OTP (WHT)
CN311 AMP (BRN)
SY1
CN301 AMP (BRN)
CN304 AMP (BRN)
CN303 MXJ (BRN)
CN302 OTP (WHT)
TB2
CN871
VD1
CN114
CA1
CN913 AMP (BRN)
CN911 AMP (BRN)
CN914 AMP (BRN)
CN912 OTP (WHT)
CN915 OTP (WHT)
CA2
CN921 AMP (BRN)
CA3
CN934 JAE (BRN)
CN931 AMP (BRN)
CN932 AMP (BRN)
AD1
CN201 OTP (WHT)
CN203 HOSI
CN202 OTP (WHT)
MIC
TC1
CN954 AMP (BRN)
CN952 OTP (WHT)
CN953 MXJ (BRN)
CN951 MXJ (BRN)
CN955 JAE (GRN)
TC5
CN982 OTP (WHT)
CN981 MXJ (BRN)
TC6
CN962 JAE (BRN)
CN961 AMP (BRN)
CN964 JAE (GRN)
CN963 JAE (RED)
CN965 JAE (GRN)
ZOOM AREA SW
FOCUS END SW
MACRO SW
ZOOM MOTOR
FOCUS MOTOR
IRIS COIL
VD1
TP
CN106 OTP (WHT)
CN107 AMP (BRN)
CN105 OTP (WHT)
CN108 AMP (BRN)
CN109 AMP (BRN)
CN104 OTP (WHT)
CN103 AMP (BRN)
CN102 AMP (BRN)
CN101 ELCO (BLK)
CN114 OTP (WHT)
CN110 AMP (BRN)
CN112 AMP (BRN)
CA3 CN934
DM2
CN181 AMP (BRN)
CN182 AMP (BRN)
TC2
CN991 JAE (WHT)
VD2
CN124 OTP (WHT)
CN123 AMP (BRN)
CN121 AMP (BRN)
CN851 HOSI (BLK)

SEMICONDUCTORS

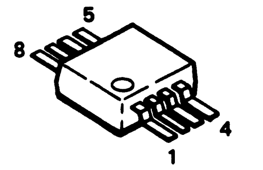
PST529D
LVC550C



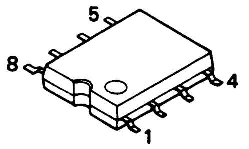
LA6358M
BA225AF
MB3763PF
LA6393M
TK10500M
NJM062MB
LA6458M



NJM2235M
NJM2233BM
NJM2234M



BA10358F
BA4558F
UPC311G2



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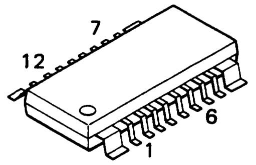

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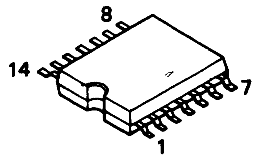

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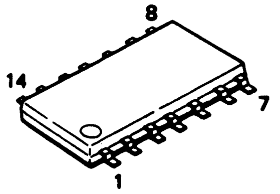
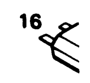
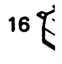
LC74HC32M LC4013BM
LVA519F LC74HC00M







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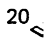

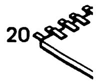

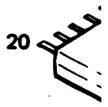

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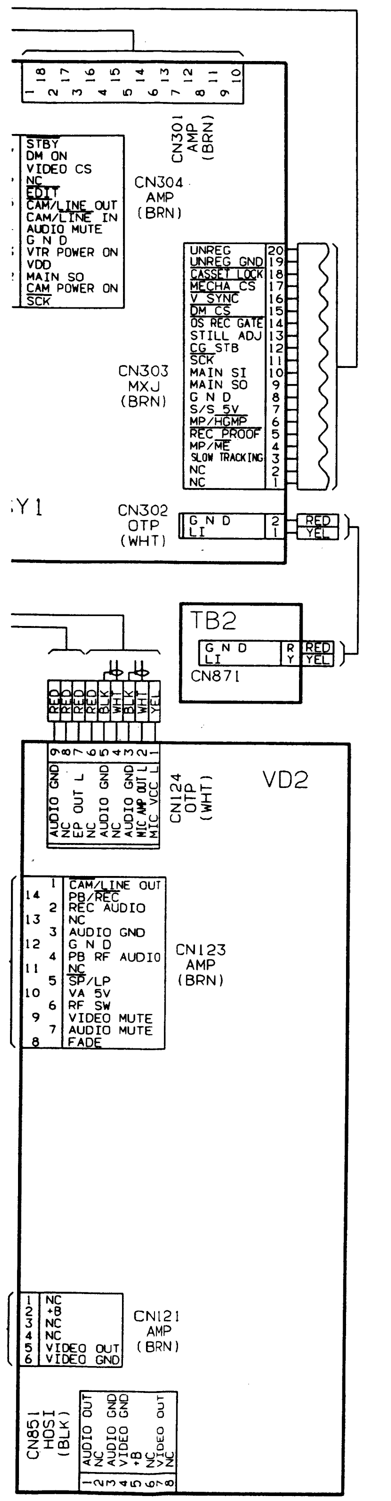
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18 17 16 15 14 13 12 11 10
CN301
AMP
(BRN)
STBY
DM ON
VIDEO CS
NC
EDIT
CAM/LINE OUT
CAM/LINE IN
AUDIO MUTE
G N D
VTR POWER ON
VDD
MAIN SO
CAM POWER ON
SCK
CN304
AMP
(BRN)
UNREG 20
UNREG GND 19
CASSET LOCK 18
MECHA CS 17
V SYNC 16
DM CS 15
OS REC GATE 14
STILL ADJ 13
CG STB 12
SCK 11
MAIN SI 10
MAIN SO 9
G N D 8
S/S 5V 7
MP/HGMP 6
REC PROOF 5
MP/ME 4
SLOW TRACKING 3
NC 2
NC 1
CN303
MXJ
(BRN)
Y1
CN302
OTP
(WHT)
G N D 2
LI 1
RED
YEL
TB2
G N D R
LI Y
RED
YEL
CN871
RED RED RED RED BLK WHT BLK WHT YEL
9 8 7 6 5 4 3 2 1
AUDIO GND
NC
EP OUT L
NC
AUDIO GND
NC
AUDIO GND
MIC AMP OUT L
MIC VCC L
CN124
OTP
(WHT)
VD2
1 CAM/LINE OUT
14 PB/REC
2 REC AUDIO
13 NC
3 AUDIO GND
12 G N D
4 PB RF AUDIO
11 NC
5 SP/LP
10 VA 5V
6 RF SW
9 VIDEO MUTE
7 AUDIO MUTE
8 FADE
CN123
AMP
(BRN)
1 NC
2 +B
3 NC
4 NC
5 VIDEO OUT
6 VIDEO GND
CN121
AMP
(BRN)
CN851
HOSI
(BLK)
1 AUDIO OUT
2 NC
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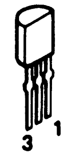
4 VIDEO GND
5 +B
6 NC
7 VIDEO OUT
8 NC

SEMICONDUCTORS

PST529D
LVC550C



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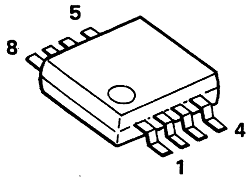

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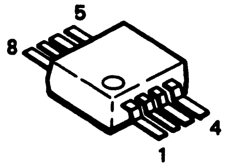

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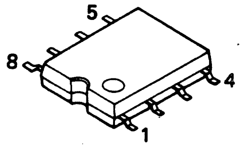

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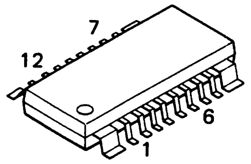

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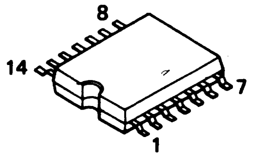

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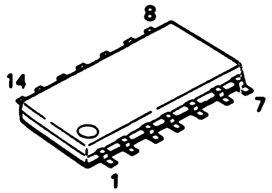

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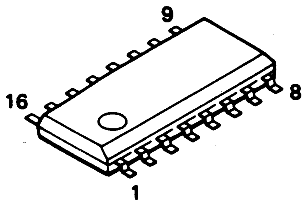

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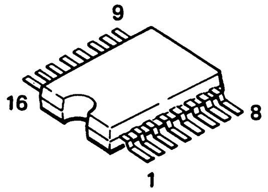

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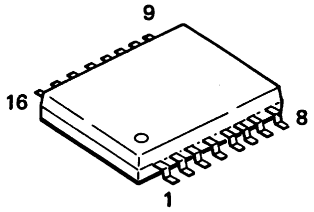

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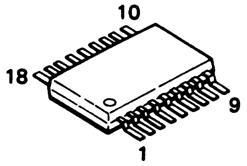

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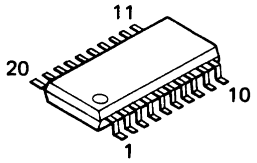

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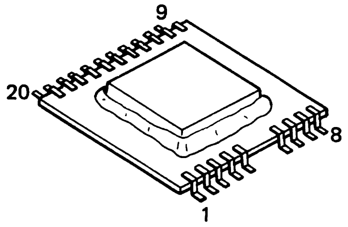

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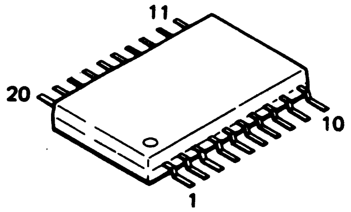

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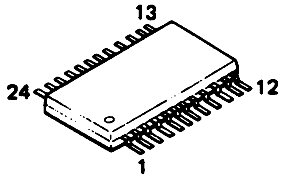

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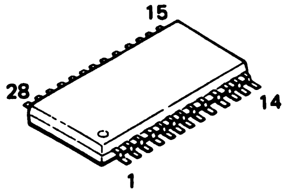

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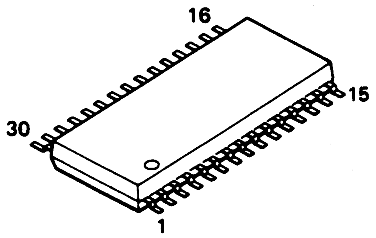

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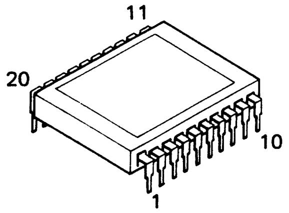

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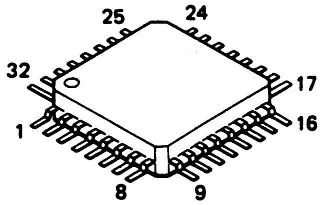
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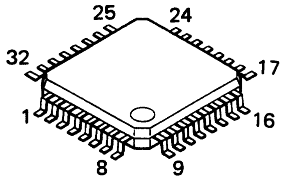
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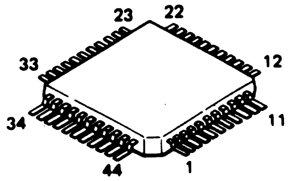
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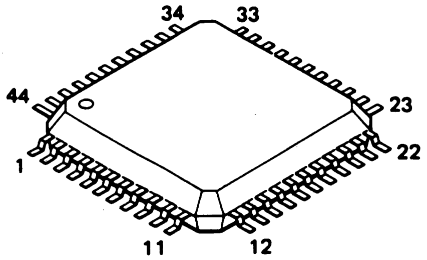
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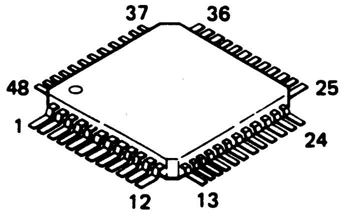
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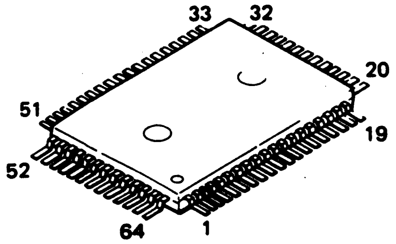
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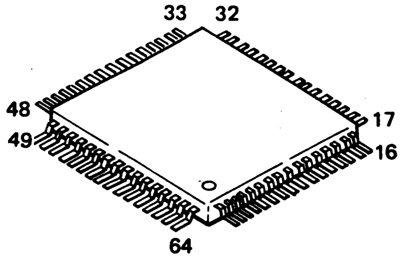
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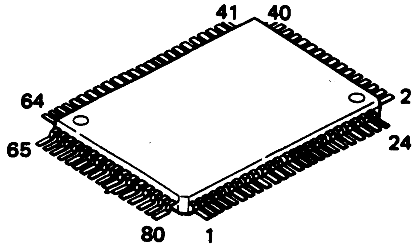
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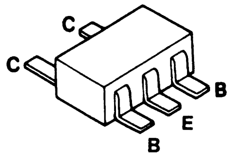

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2SC2812 2SA1257
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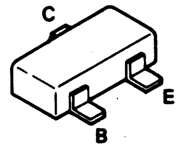
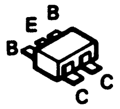


FMG1
FMA2
FMG2
FMW1
FMS1



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IMX2
IMZ2
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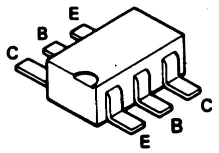

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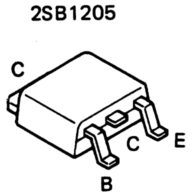

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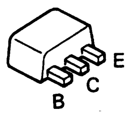

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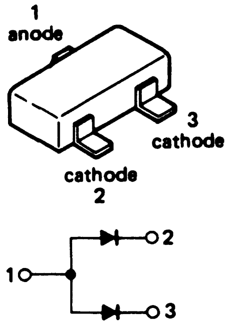
DCA015
DCA010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anode
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cathode
cathode
2
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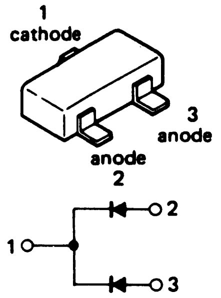
2
3

DCG015
DCB015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cathode
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anode
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DSB010 DSH015
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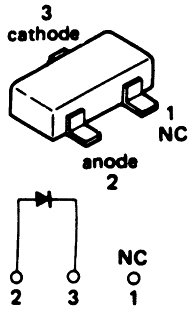
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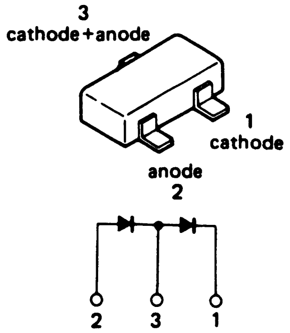
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cathode
anode
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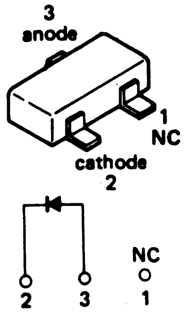
2
3
1

RD4.7M–B2
RD13M–B1
RD8.2M–B2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anode
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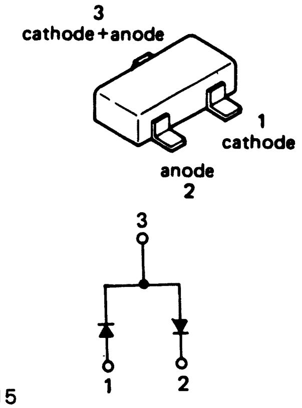
NC
cathode
2
NC
2
3
1

1SS302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BG1102W
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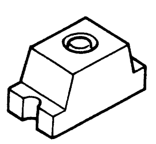
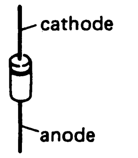


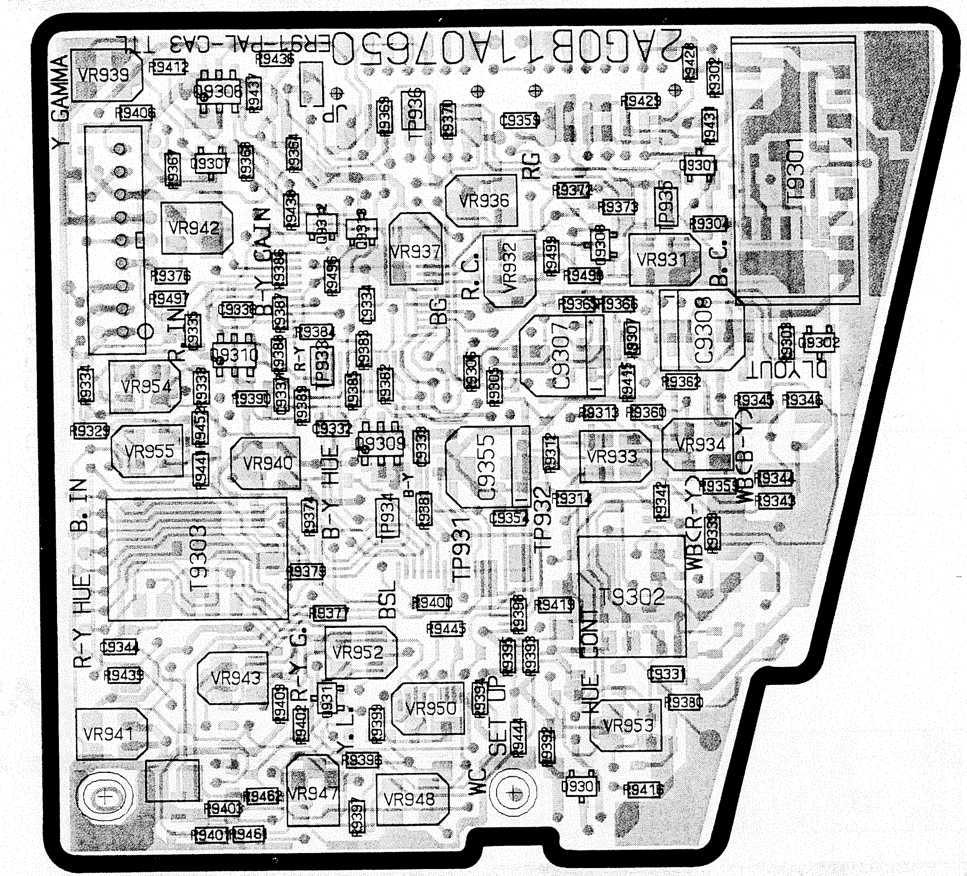
ESJ04 1SV200
ERA34


cathode
anode

Ⓐ

12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

CA-3 BOARD SIDE A



2AG0B11A0765 ER91-PAL-CA3
Y GAMMA
VR939
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VR936
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VR931
VR954
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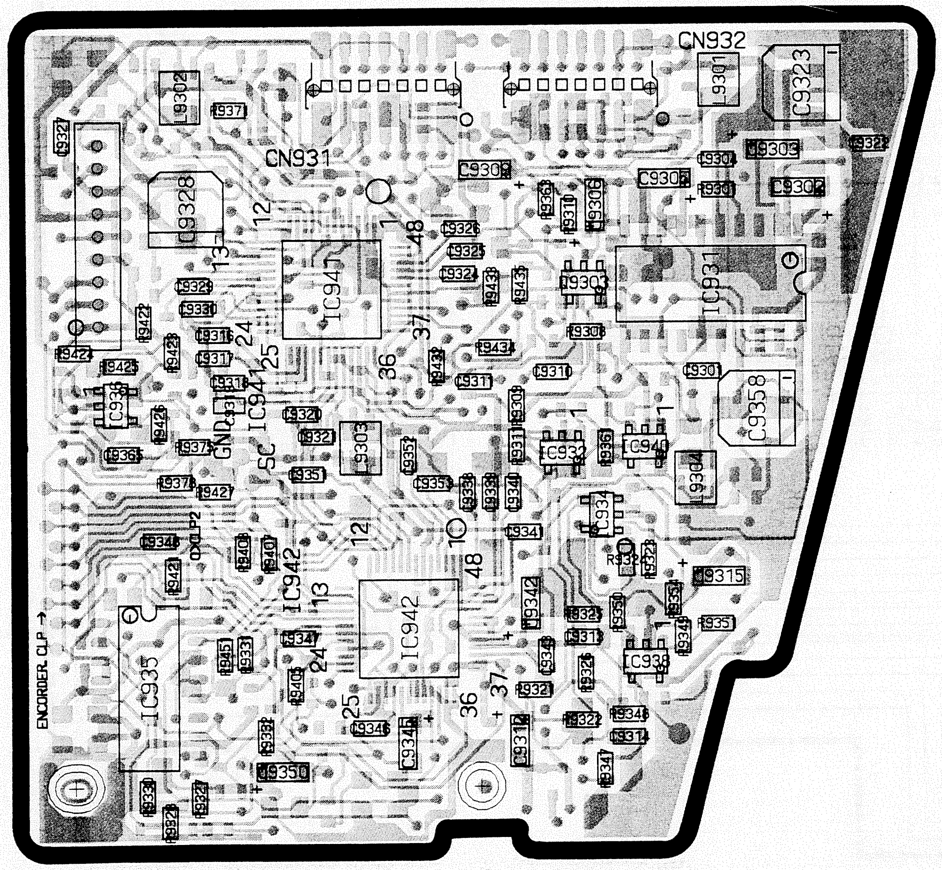
VR950
VR953
VR941
VR947
VR948
VR934
VR933
T9303
T9302
T9301
C9355
C9307
C9308
TP931
TP932
TP934
TP936
R-Y HUE
B.IN
R.IN
Y GAIN
B-Y HUE
BSL
R-Y G.
SET UP
HUE
WBCR-Y
DL YOUT
R.C.
B.C.
RG
BG
WC

CA-3 BOARD SIDE B



CN932
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C9358
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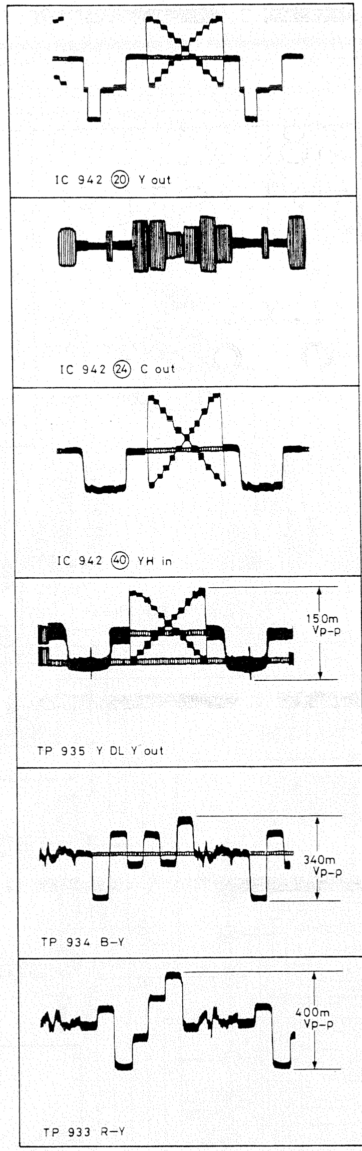
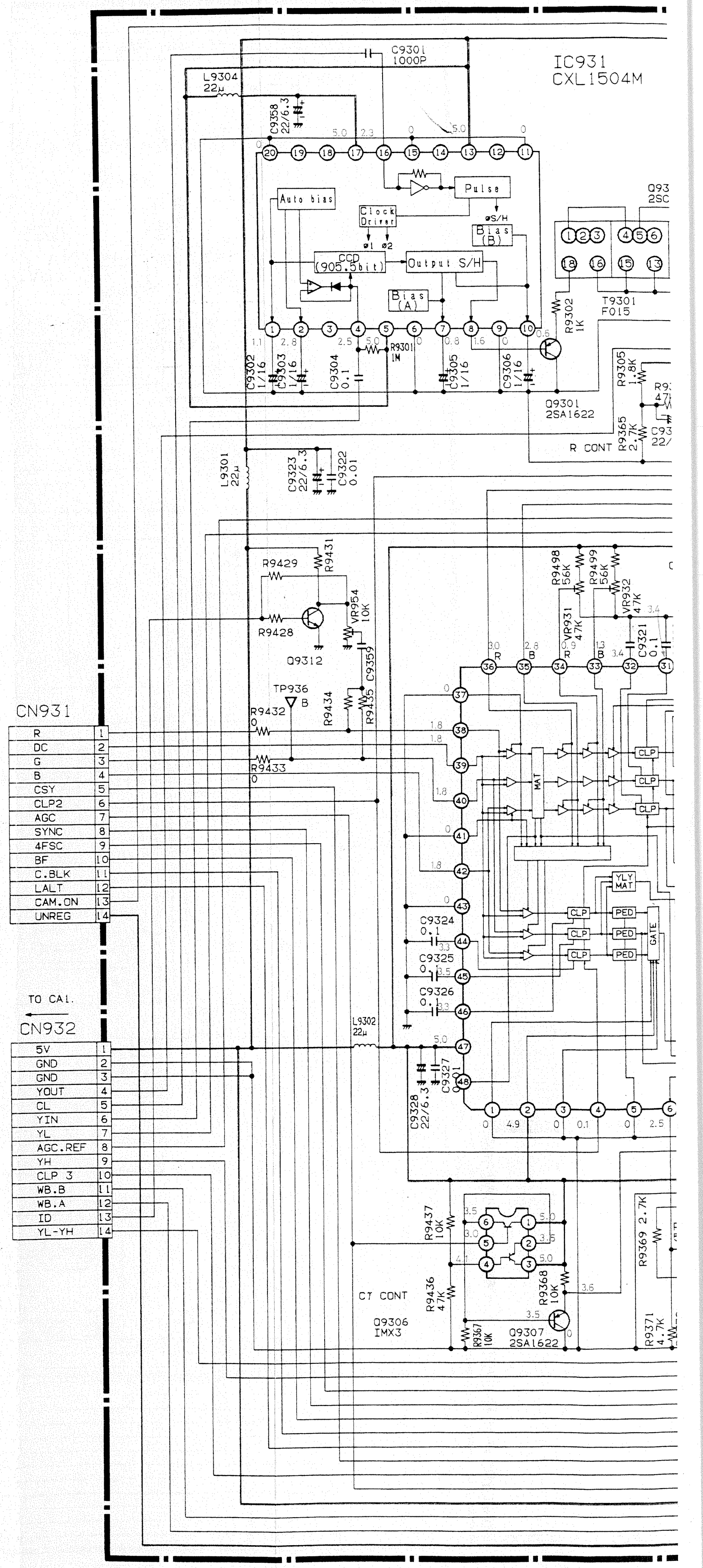
IC932
IC933
IC940
ENCORDER CLP

CA-3 BOARD (CAMERA)



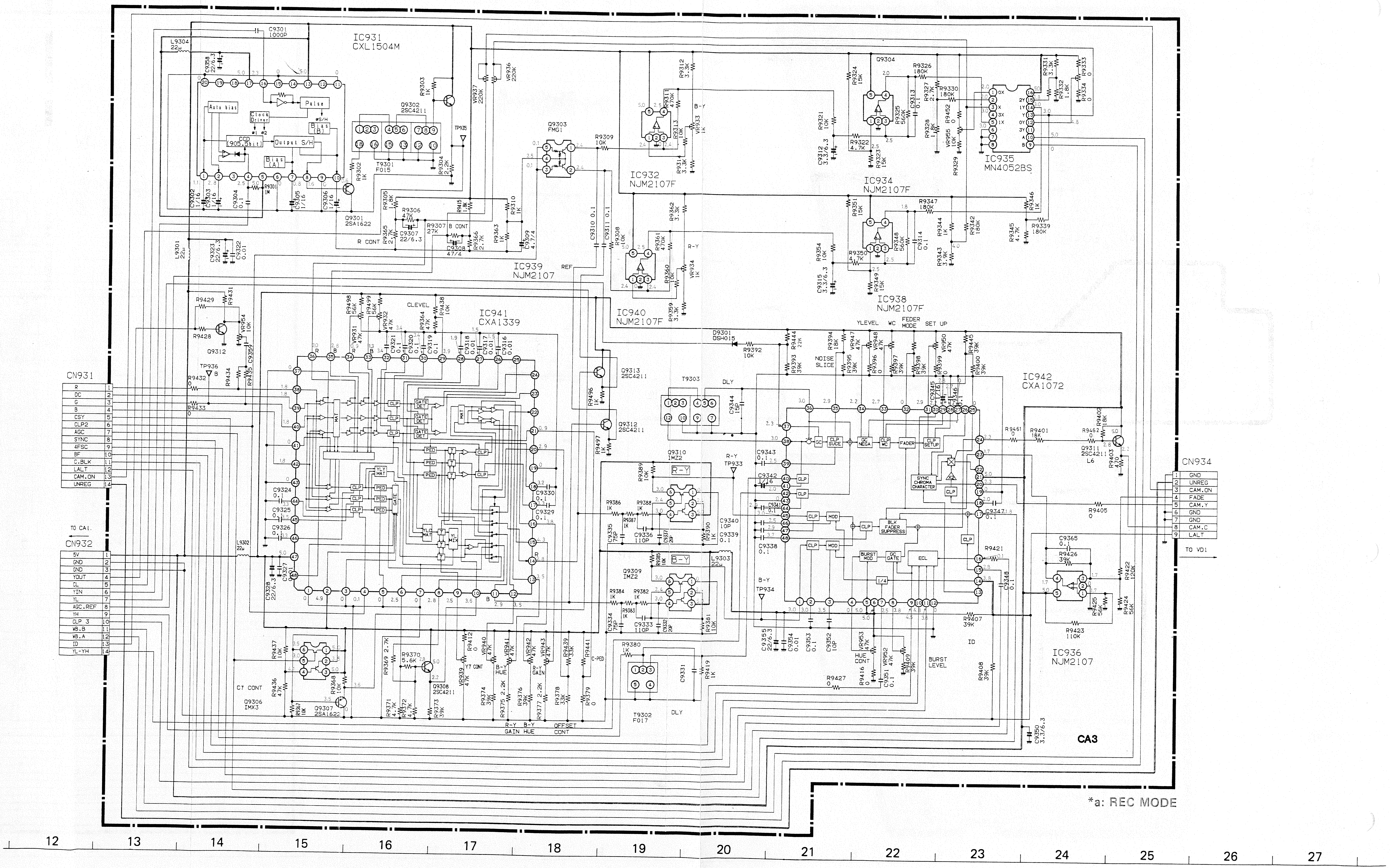


IC931
CXL1504M
C9301
1000P
L9304
22µ
C9358
22/6.3
Auto bias
Clock Driver
Pulse
CCD (905.5bit)
Output S/H
Bias (A)
Bias (B)
R9301 1M
R9302 1K
T9301 F015
Q9301 2SA1622
R CONT
L9301 22µ
C9323 22/6.3
C9322 0.01
R9429
R9431
R9428
Q9312
VR954 10K
TP936 B
R9432
R9433
R9434
R9435
R9498 56K
R9499 56K
VR931 47K
VR932 47K
C9321 0.1
C9324
C9325
C9326
L9302 22µ
C9327
C9328 22/6.3
CN931
1 R
2 DC
3 G
4 B
5 CSY
6 CLP2
7 AGC
8 SYNC
9 4FSC
10 BF
11 C.BLK
12 LALT
13 CAM.ON
14 UNREG
TO CA1.
CN932
1 5V
2 GND
3 GND
4 YOUT
5 CL
6 YIN
7 YL
8 AGC.REF
9 YH
10 CLP 3
11 WB.B
12 WB.A
13 ID
14 YL-YH
MAT
CLP
PED
GATE
YL MAT
R9437 10K
R9436 4.7K
CT CONT
Q9306 IMX3
R9367 10K
R9368 10K
Q9307 2SA1622
R9369 2.7K
R9371 4.7K
R9365 2.7K
R9305 1.8K

K
J
I
H
G
F
E
D
C
B
A

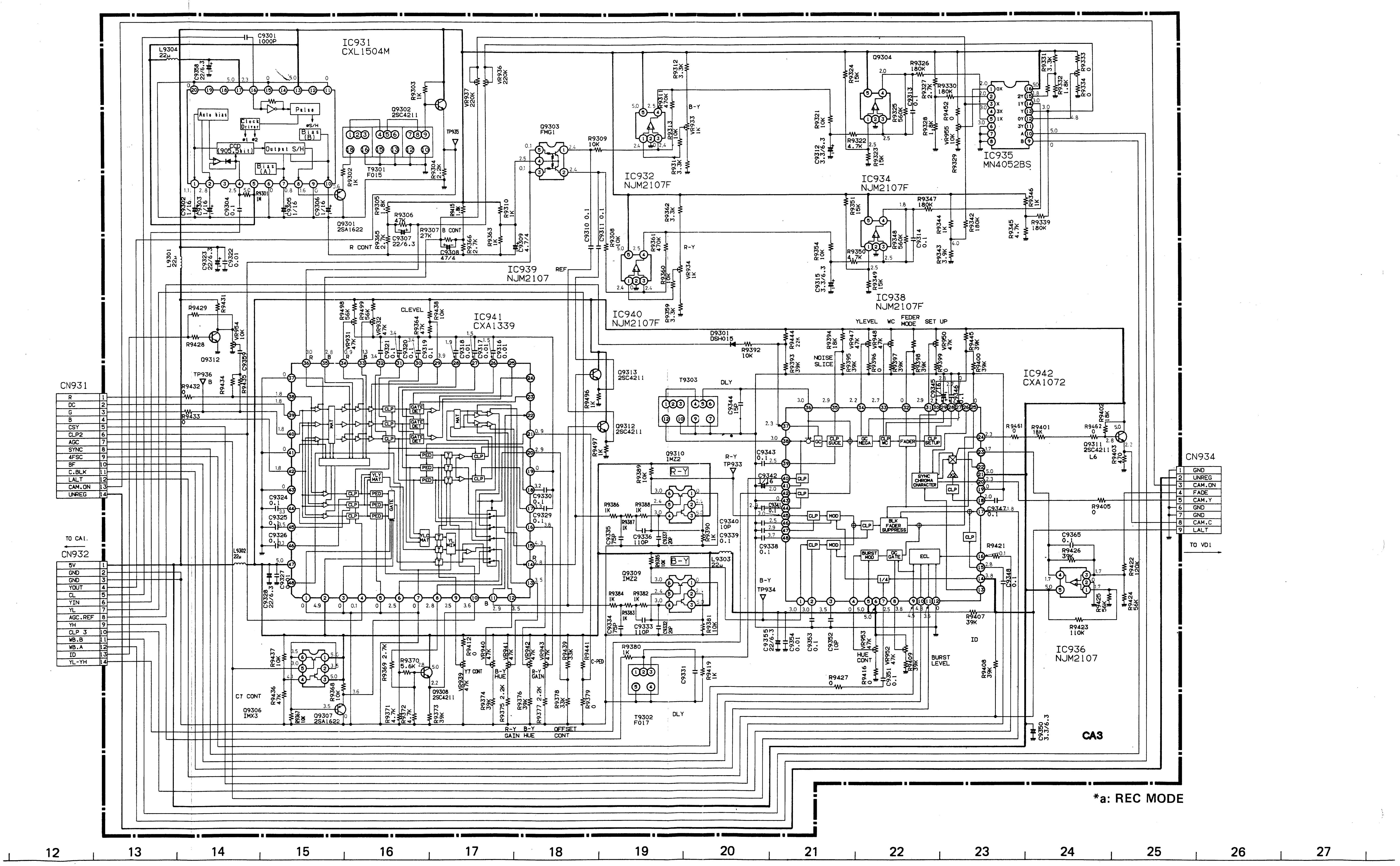
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

CA-3 CIRCUIT


IC931
CXL1504M
Auto bias
Clock Driver
Pulse
CCD (905.5bit)
Output S/H
Bias (A)
Bias (B)
Q9301
2SA1622
Q9302
2SC4211
T9301
F015
TP935
Q9303
FMG1
IC932
NJM2107F
B-Y
IC939
NJM2107
REF
IC940
NJM2107F
R-Y
IC934
NJM2107F
Q9304
IC935
MN4052BS
IC938
NJM2107F
IC941
CXA1339
CLEVEL
Q9312
TP936
Q9313
2SC4211
Q9312
2SC4211
D9301
DSH015
T9303
DLY
Q9310
IMZ2
R-Y
TP933
Q9309
IMZ2
B-Y
TP934
IC942
CXA1072
YLEVEL
WC
FEDER MODE
SET UP
NOISE SLICE
SYNC CHROMA CHARACTER
BLK FADER SUPPRESS
BURST MOD
GC GATE
ECL
Q9311
2SC4211
IC936
NJM2107
HUE CONT
BURST LEVEL
ID
Q9306
IMX3
Q9307
2SA1622
CT CONT
Q9308
2SC4211
YT CONT
R-Y GAIN
B-Y HUE
OFFSET CONT
C-PED
T9302
F017
DLY
CN931
1 R
2 DC
3 G
4 B
5 CSY
6 CLP2
7 AGC
8 SYNC
9 4FSC
10 BF
11 C.BLK
12 LALT
13 CAM.ON
14 UNREG
TO CA1.
CN932
1 5V
2 GND
3 GND
4 YOUT
5 CL
6 YIN
7 YL
8 AGC.REF
9 YH
10 CLP 3
11 WB.B
12 WB.A
13 ID
14 YL-YH
CN934
1 GND
2 UNREG
3 CAM.ON
4 FADE
5 CAM.Y
6 GND
7 GND
8 CAM.C
9 LALT
TO VD1
CA3
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

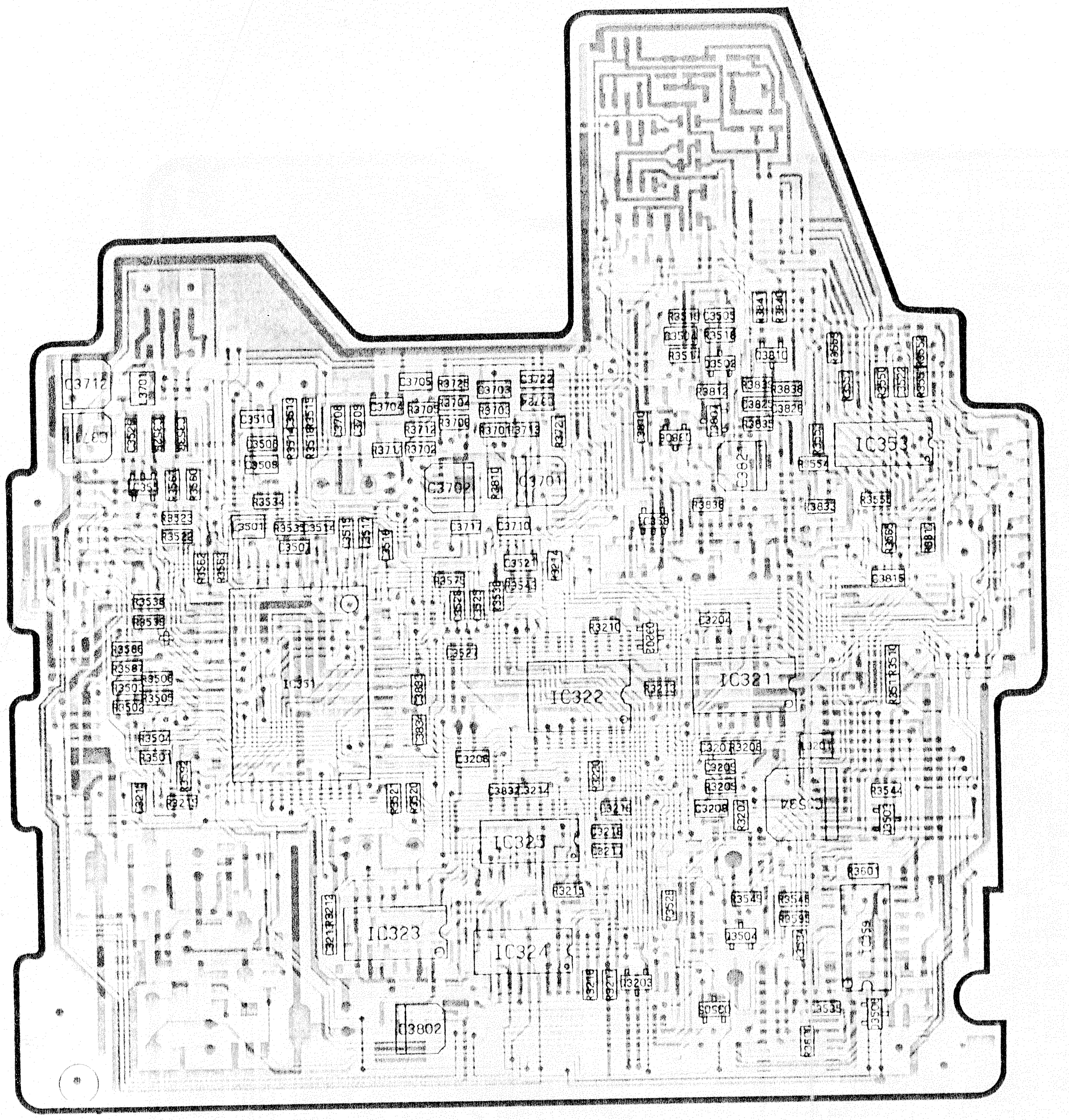
*a: REC MODE

CA-3 CIRCUIT

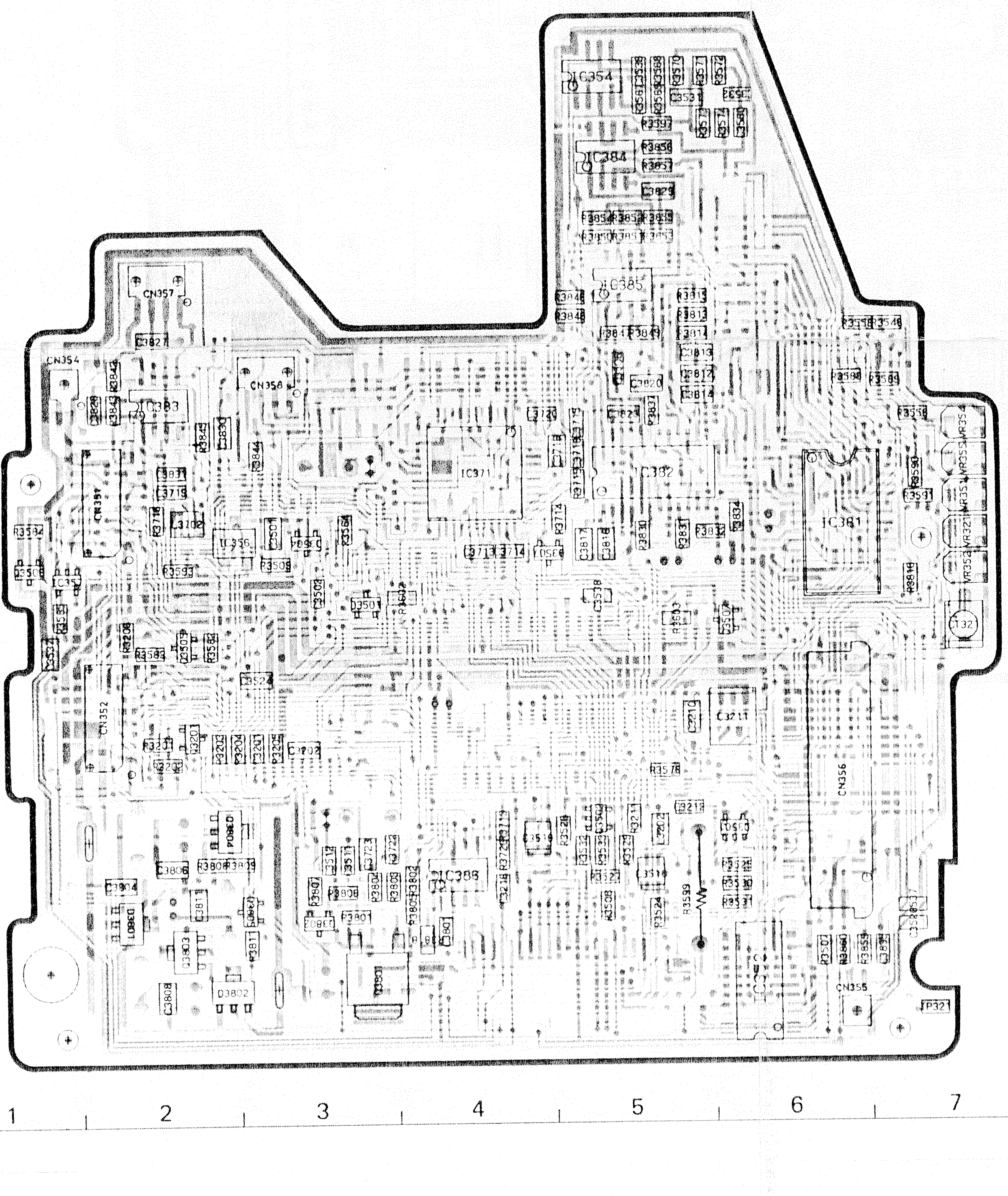

IC931
CXL1504M
IC932
NJM2107F
IC934
NJM2107F
IC935
MN4052BS
IC938
NJM2107F
IC939
NJM2107
IC940
NJM2107F
IC941
CXA1339
IC942
CXA1072
IC936
NJM2107
Q9301
2SA1622
Q9302
2SC4211
Q9303
FMG1
Q9304
Q9306
IMX3
Q9307
2SA1622
Q9308
2SC4211
Q9309
IMZ2
Q9310
IMZ2
Q9311
2SC4211
L6
Q9312
2SC4211
Q9313
2SC4211
T9301
F015
T9302
F017
T9303
DLY
D9301
DSH015
L9301
22u
L9302
22u
L9303
22u
L9304
22u
C9301
1000P
Auto bias
Clock Driver
Pulse
CCD
(905.5bit)
Output S/H
Bias (A)
Bias (B)
R CONT
B CONT
REF
B-Y
R-Y
TP935
TP936
TP933
TP934
CLEVEL
YLEVEL
WC
FEDER MODE
SET UP
NOISE SLICE
HUE CONT
BURST LEVEL
ID
C7 CONT
Y7 CONT
R-Y GAIN
B-Y HUE
OFFSET CONT
C-PED
CLP
GATE DET
MAT
PED
YL MIX
YLY MAT
GC
CLP SLICE
GC NEGA
CLP WC
FADER
CLP SETUP
SYNC CHROMA CHARACTER
BLK FADER SUPPRESS
BURST MOD
GC GATE
ECL
MOD
1/4
CN931
R
DC
G
B
CSY
CLP2
AGC
SYNC
4FSC
BF
C.BLK
LALT
CAM.ON
UNREG
TO CA1.
CN932
5V
GND
GND
YOUT
CL
YIN
YL
AGC.REF
YH
CLP 3
WB.B
WB.A
ID
YL-YH
CN934
GND
UNREG
CAM.ON
FADE
CAM.Y
GND
GND
CAM.C
LALT
TO VD1
CA3
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

*a: REC MODE

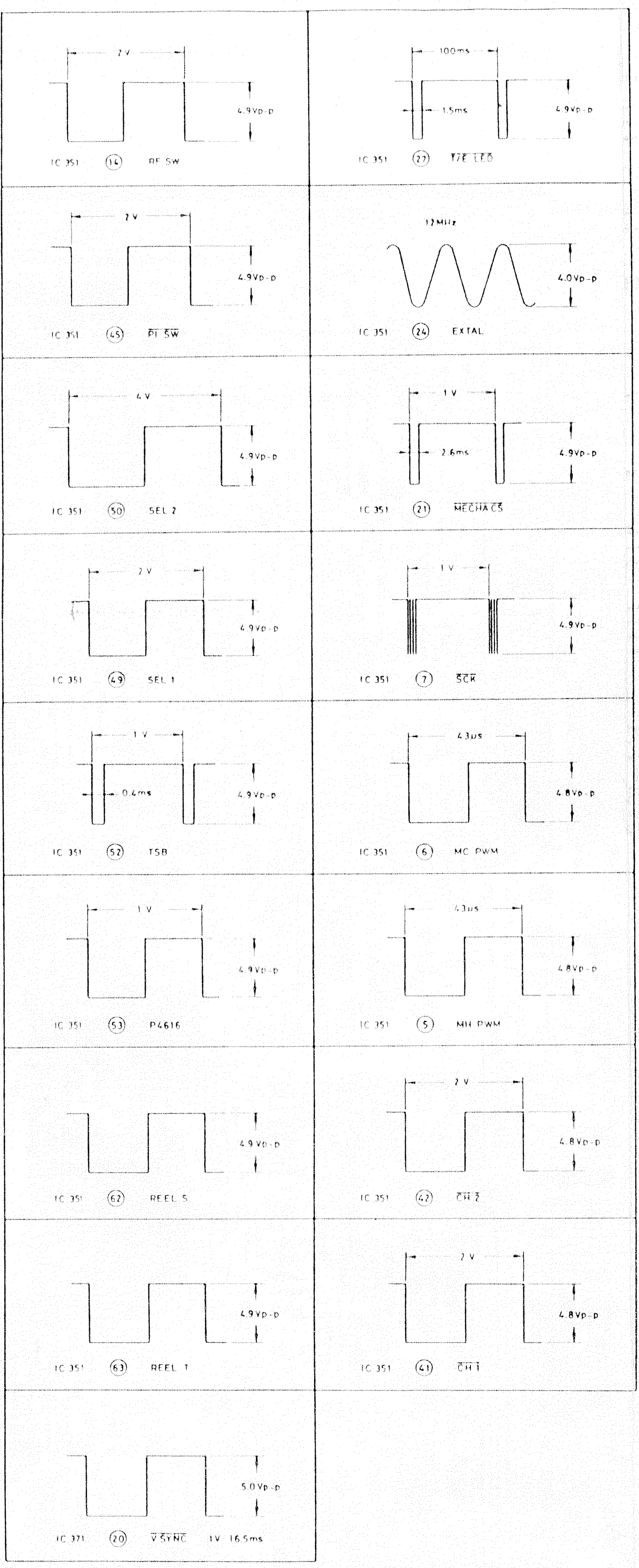
SV-1 BOARD SIDE A


IC351
IC321
IC322
IC323
IC324
IC353
IC325

SV-1 BOARD SIDE B


IC354
IC384
IC385
IC371
IC381
IC382
CN352
CN354
CN355
CN356
CN357
CN358

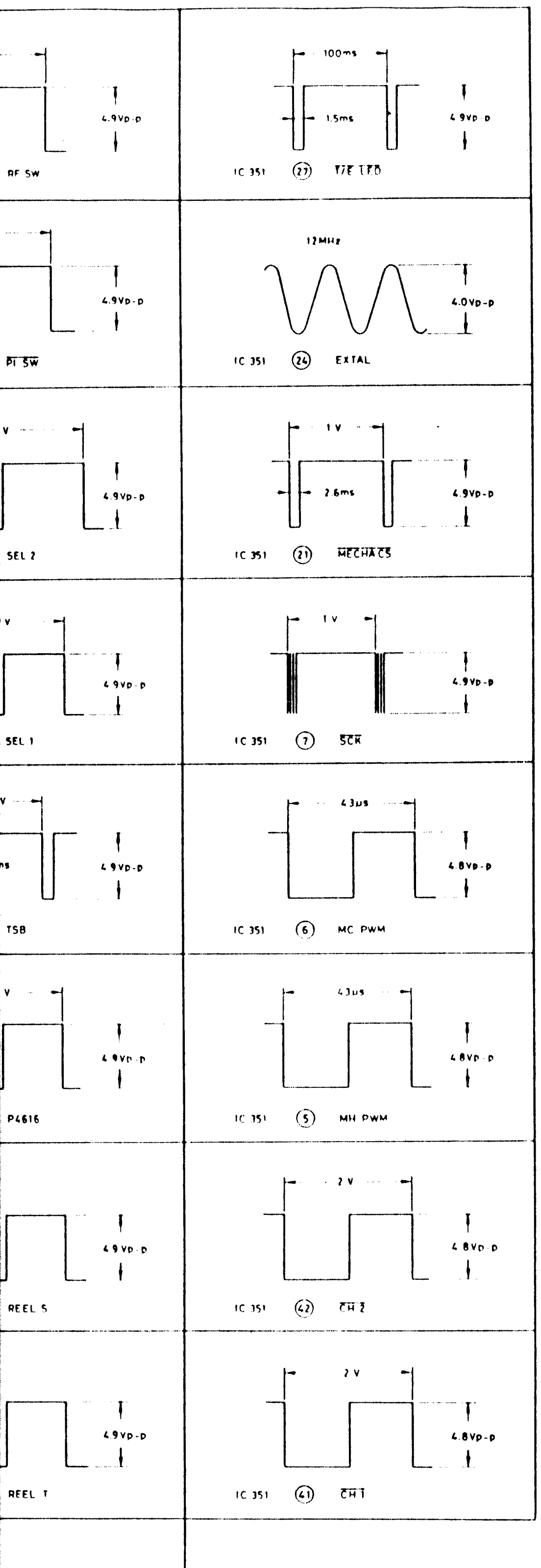
SV-1 BOARD (SERVO)

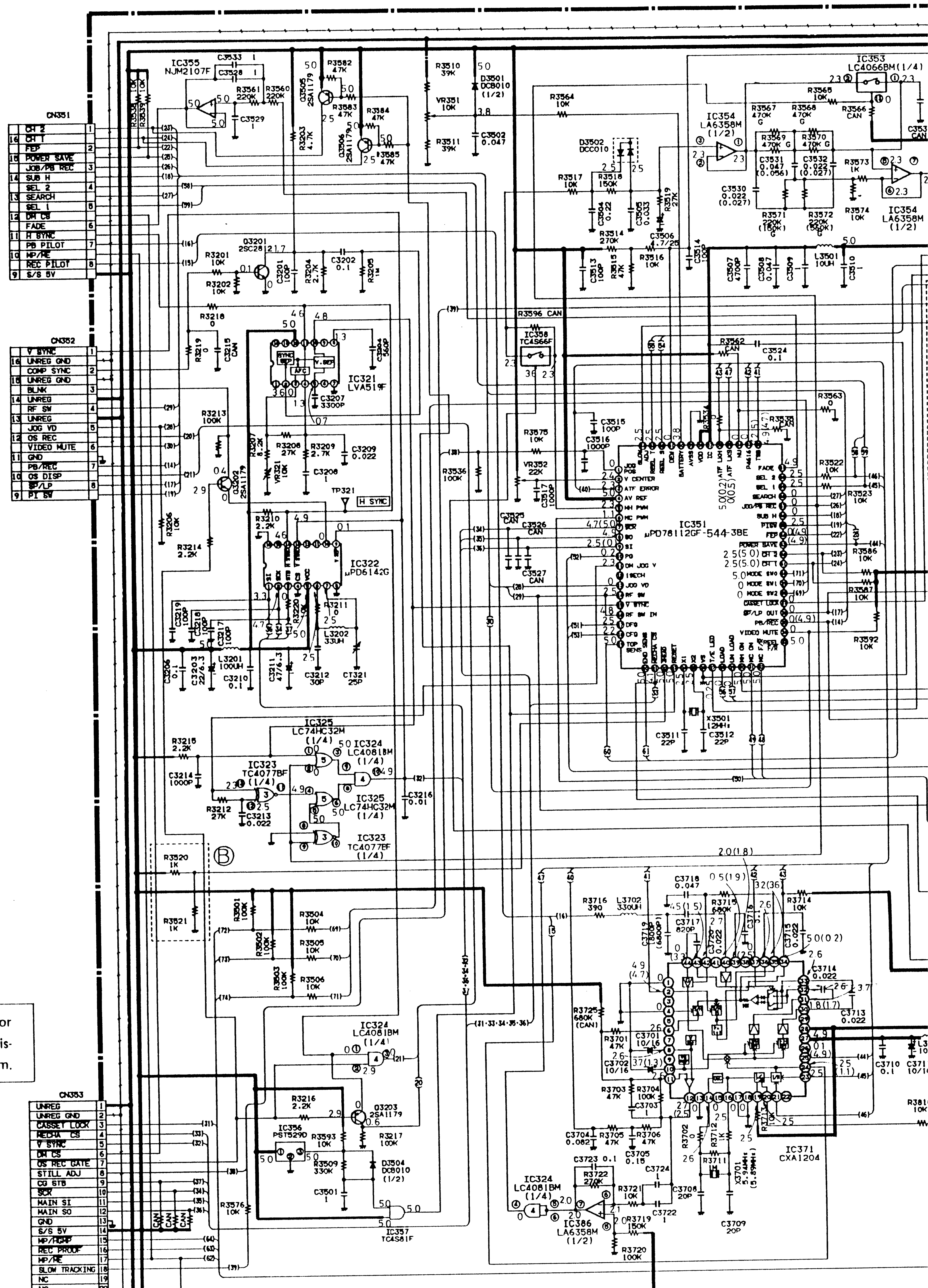


Note: R3599 on the SV-1 PWB is short-circuited fo
the set which has an externally mounted resis
tor (8.2Ω) for the loading motor of mechanism

		ER93P (VM-D8P)
A	R3548	○
	R3556	×
	R3555	×
	VR355	×
B	R3520	○
	R3521	×

( ): PAL



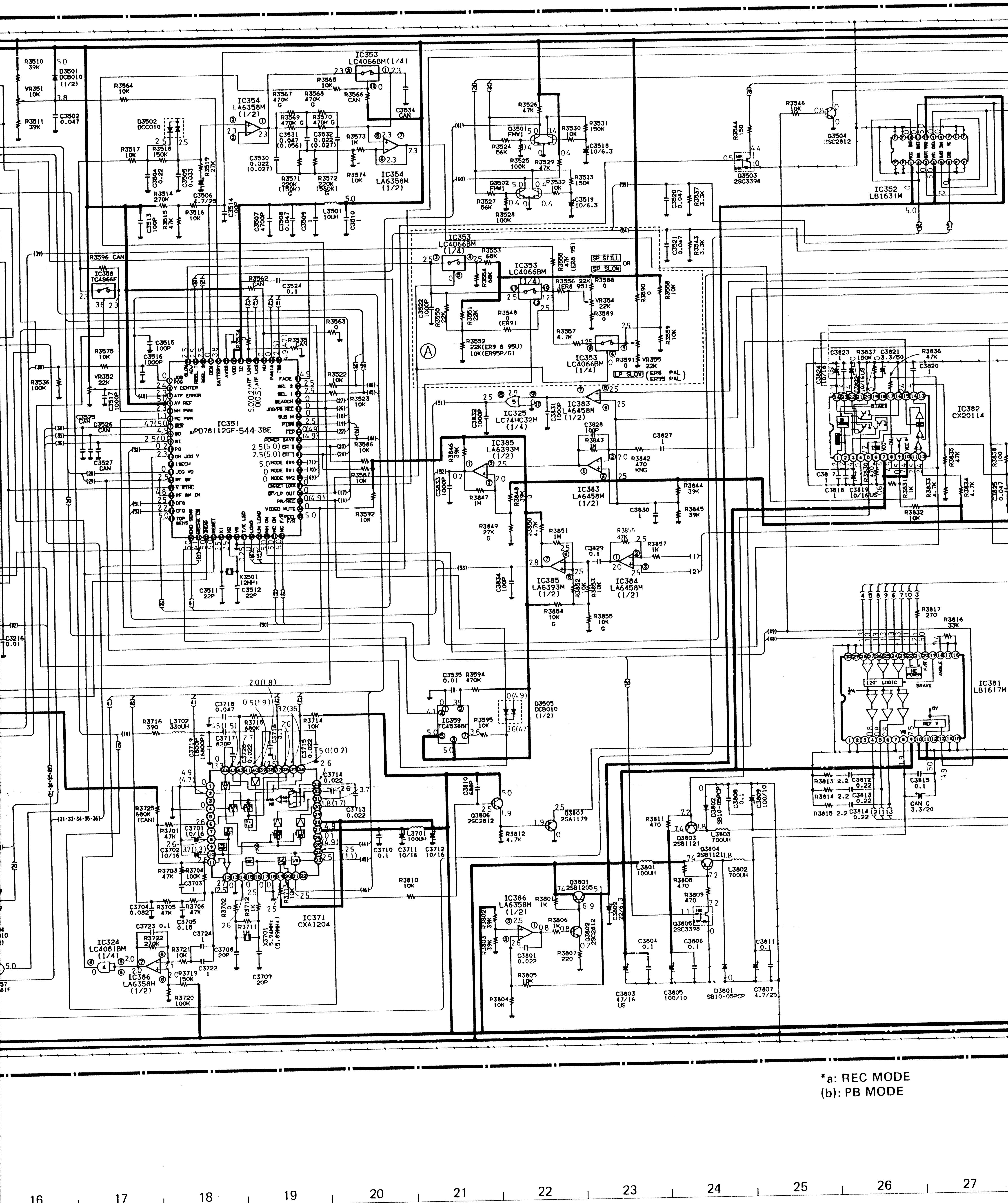

CN351
CH 2
CH 1
FEP
POWER SAVE
JOB/PB REC
SUB H
SEL 2
SEARCH
SEL 1
DH CS
FADE
H SYNC
PB PILOT
MP/RE
REC PILOT
S/S 5V
CN352
V SYNC
UNREG GND
COMP SYNC
UNREG GND
BLNK
UNREG
RF SW
UNREG
JOG VD
OS REC
VIDEO MUTE
GND
PB/REC
OS DISP
SP/LP
PI SW
CN353
UNREG
UNREG GND
CASSET LOCK
MECHA CS
V SYNC
DH CS
OS REC GATE
STILL ADJ
CG STB
SCK
MAIN SI
MAIN SO
GND
S/S 5V
MP/RCHP
REC PROOF
MP/RE
SLOW TRACKING
NC
NC
IC355 NJM2107F
IC354 LA6358M (1/2)
IC353 LC4066BM(1/4)
IC351 µPD78112GF-544-3BE
IC321 LVA519F
IC322 µPD6142G
IC325 LC74HC32M (1/4)
IC324 LC4081BM (1/4)
IC323 TC4077BF (1/4)
IC356 PST529D
IC357 TC4S81F
IC358 TC4S66F
IC371 CXA1204
IC386 LA6358M (1/2)
Q3201 2SC28
Q3202 2SA1179
Q3203 2SA1179
Q3505 2SA1179
Q3506 2SA1179
X3501 12MHz
X3701 5.94MHz (5.89MHz)
TP321
H SYNC
Ⓑ
9
10
11
12
13
14
15
16
17
18
19
20

Note: R3599 on the SV-1 PWB is short-circuited for the set which has an externally mounted resistor (8.2Ω) for the loading motor of mechanism.

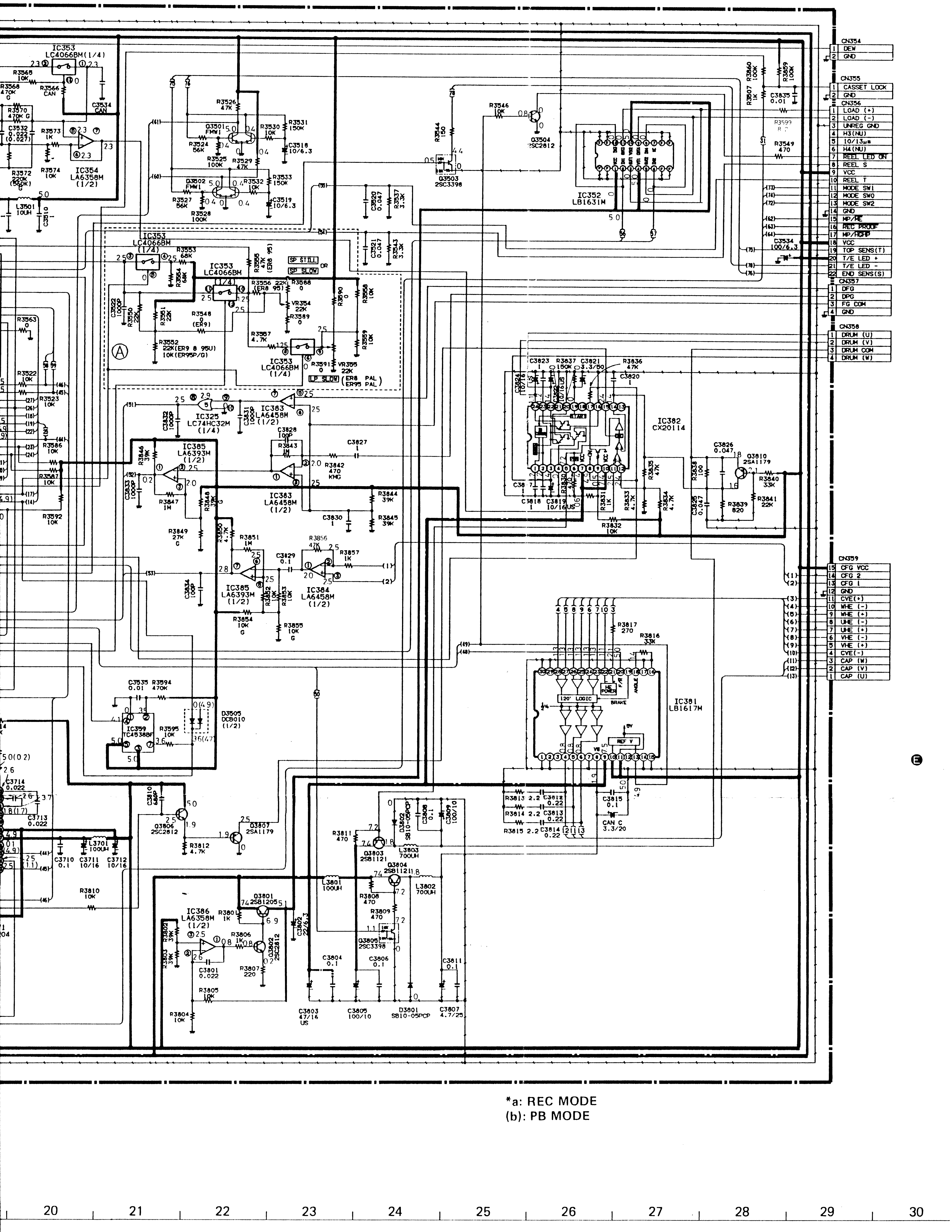
		ER93P (VM-D8P)
A	R3548	○
	R3556	×
	R3555	×
	VR355	×
B	R3520	○
	R3521	×

( ): PAL

SV-1 CIRCUIT

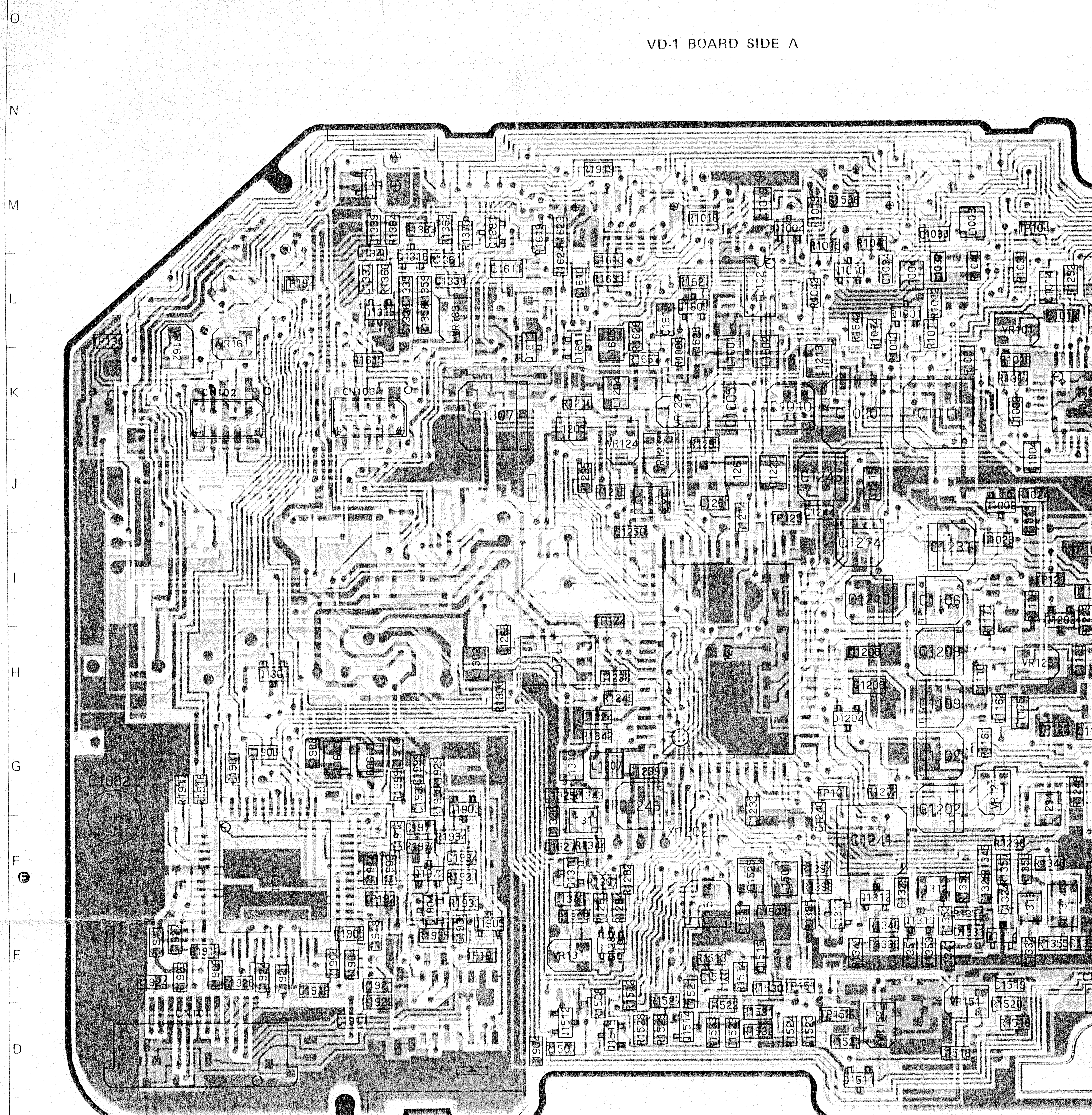

IC351
µPD78112GF-544-3BE
IC353
LC4066BM(1/4)
IC354
LA6358M
(1/2)
IC358
TC4S66F
IC352
LB1631M
IC382
CX20114
IC383
LA6458M
(1/2)
IC325
LC74HC32M
(1/4)
IC385
LA6393M
(1/2)
IC384
LA6458M
(1/2)
IC359
TC4538BF
D3505
DCB010
(1/2)
IC381
LB1617M
IC371
CXA1204
IC324
LC4081BM
(1/4)
IC386
LA6358M
(1/2)
Q3501
FMW1
Q3502
FMW1
Q3503
2SC3398
Q3504
2SC2812
Q3801
2SB1205
Q3802
2SC2812
Q3803
2SB1121
Q3804
2SB1121
Q3805
2SC3398
Q3806
2SC2812
Q3807
2SA1179
X3501
12MHz
X3701
5.94MHz
(5.89MHz)
SP STILL
SP SLOW
LP SLOW
16
17
18
19
20
21
22
23
24
25
26
27

*a: REC MODE
(b): PB MODE


IC353
LC4066BM(1/4)
IC354
LA6358M
(1/2)
IC353
LC4066BM
(1/4)
SP STILL
SP SLOW
LP SLOW
(ER8 PAL)
(ER95 PAL)
Q3501
FMW1
Q3502
FMW1
Q3503
2SC3398
Q3504
2SC2812
IC352
LB1631M
IC325
LC74HC32M
(1/4)
IC383
LA6458M
(1/2)
IC385
LA6393M
(1/2)
IC384
LA6458M
(1/2)
IC382
CX20114
Q3810
2SA1179
IC359
TC4538BF
D3505
DCB010
(1/2)
IC381
LB1617M
120° LOGIC
BRAKE
ANGLE
REF V
Q3806
2SC2812
Q3807
2SA1179
Q3801
2SB1205
Q3802
2SC2812
IC386
LA6358M
(1/2)
Q3803
2SB1121
Q3804
2SB1121
Q3805
2SC3398
D3801
SB10-05PCP
D3802
SB10-05PCP
CN354
1 DEW
2 GND
CN355
1 CASSET LOCK
2 GND
CN356
1 LOAD (+)
2 LOAD (-)
3 UNREG GND
4 H3(NU)
5 10/13μm
6 H4(NU)
7 REEL LED ON
8 REEL S
9 VCC
10 REEL T
11 MODE SW1
12 MODE SW0
13 MODE SW2
14 GND
15 MP/RE
16 REC PROOF
17 MP/HGMP
18 VCC
19 TOP SENS(T)
20 T/E LED +
21 T/E LED -
22 END SENS(S)
CN357
1 DFG
2 DPG
3 FG COM
4 GND
CN358
1 DRUM (U)
2 DRUM (V)
3 DRUM COM
4 DRUM (W)
CN359
15 CFG VCC
14 CFG 2
13 CFG 1
12 GND
11 CVE(+)
10 WHE (-)
9 WHE (+)
8 UHE (-)
7 UHE (+)
6 VHE (-)
5 VHE (+)
4 CVE(-)
3 CAP (W)
2 CAP (V)
1 CAP (U)
Ⓔ
20
21
22
23
24
25
26
27
28
29
30

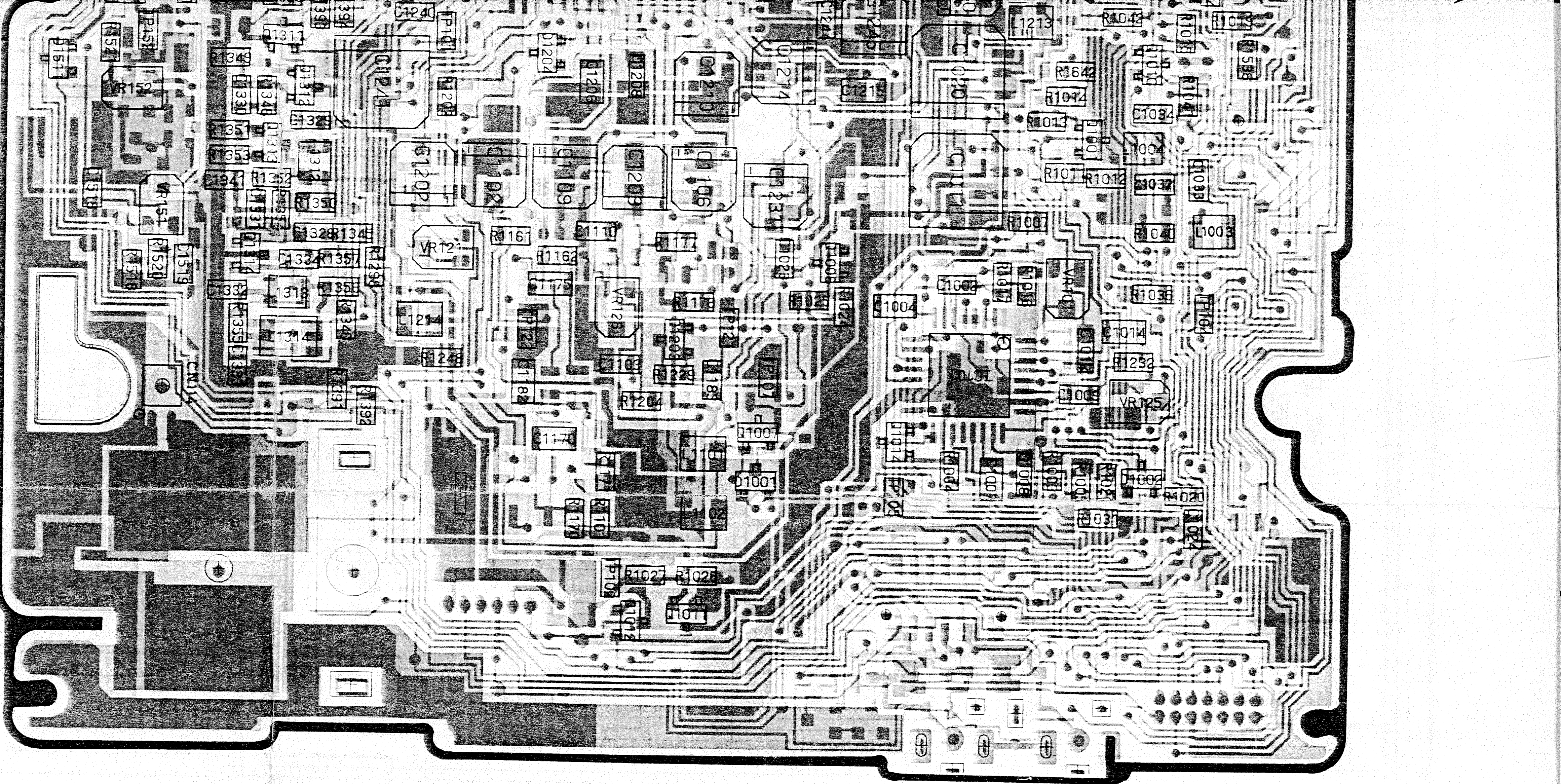
*a: REC MODE
(b): PB MODE

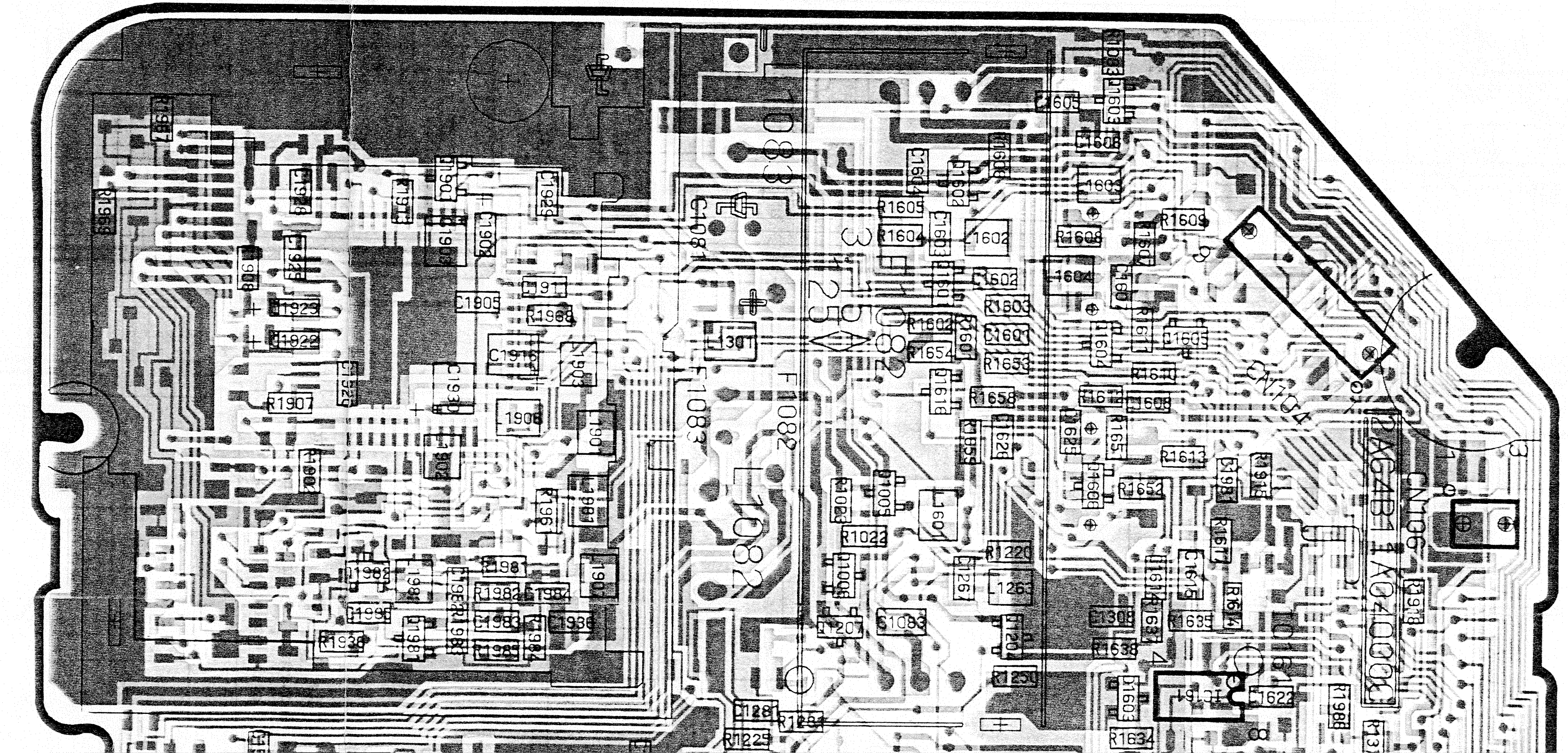
VD-1 BOARD SIDE A



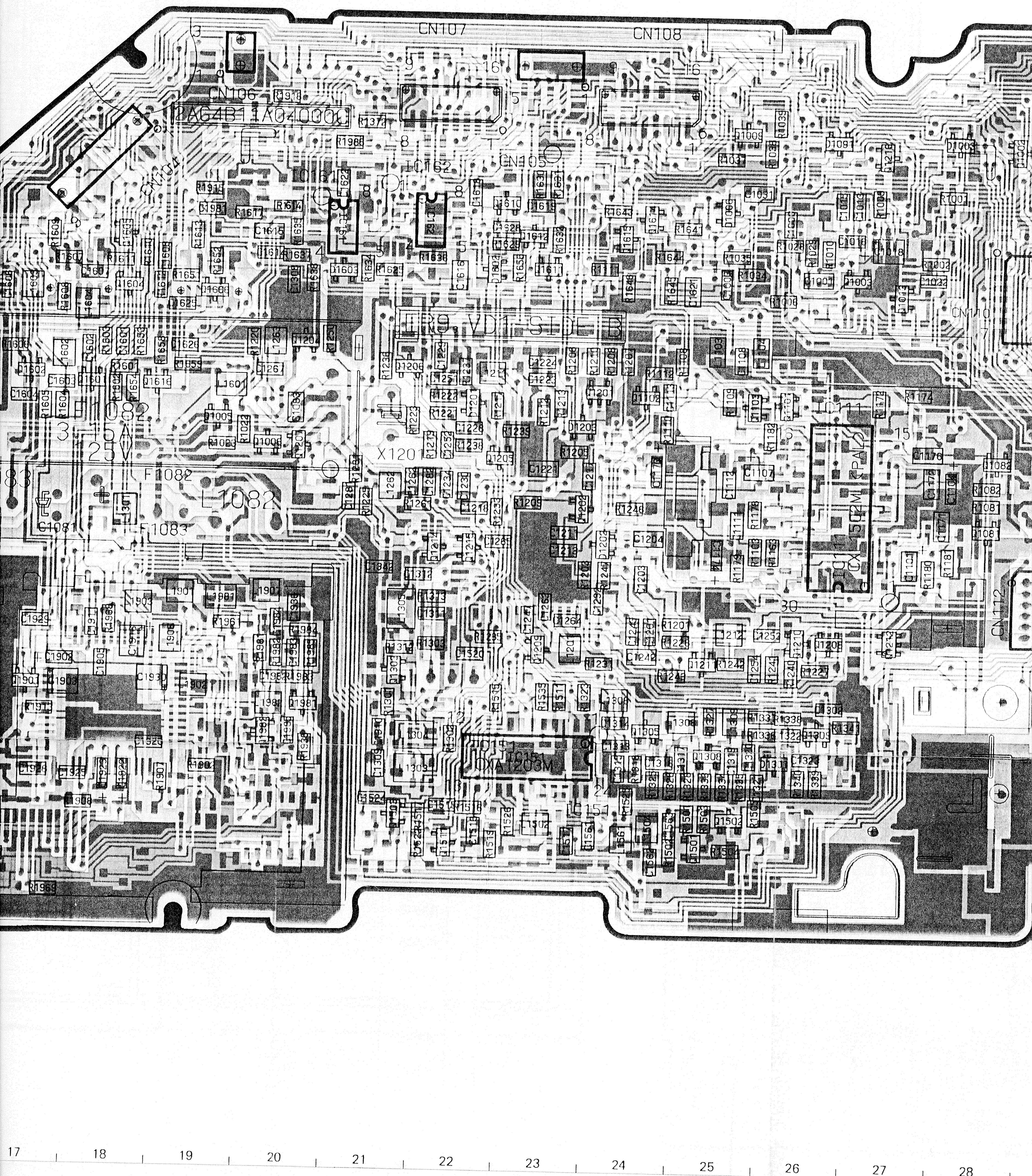
O
N
M
L
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
CN101
CN102
CN103
IC191
IC121
C1082
C1307
T1201
X1202
VR161
VR162
VR131
VR151
VR152
VR121
VR122
VR123
VR124
VR126
VR101
VR189
L1302
L1204
L1207
L1213
L1001
L1002
L1003
C1010
C1020
C1011
C1005
C1245
C1274
C1231
C1210
C1106
C1209
C1109
C1102
C1202
C1241

10 11 12 13 14 15 16 17 18 19 20 21

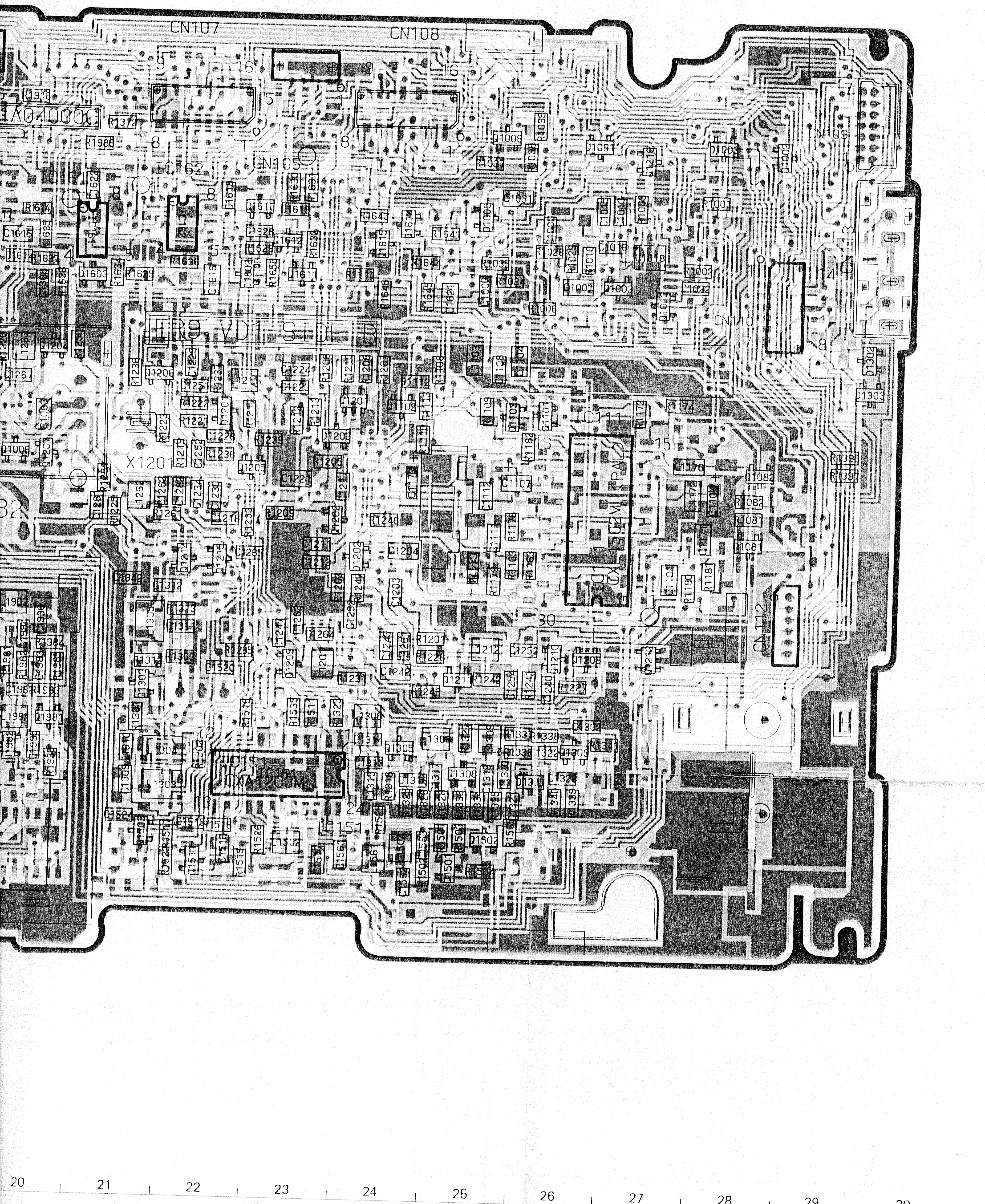

VR152
VR151
VR121
VR128
VR101
VR125
CN101
R1349
R1351
R1353
R1350
C1240
C1215
L1213
R1042
R1642
R1014
R1013
C1034
R1011
R1012
C1037
R1040
L1003
R1036
C1014
R1252
R1161
R1162
C1110
R1177
R1176
L1214
R1248
R1229
R1204
C1170
R1027
R1028
R1031
R1020
C1004
IC1001


CN104
CN106
R1605
R1604
R1609
R1608
R1603
R1602
R1654
R1653
R1658
R1610
R1613
R1652
R1635
R1907
R1929
R1928
C1805
R1988
C1916
R1938
R1023
R1220
L1261
R1207
R1250
C1083
R1225
C1622
L1083
L1082

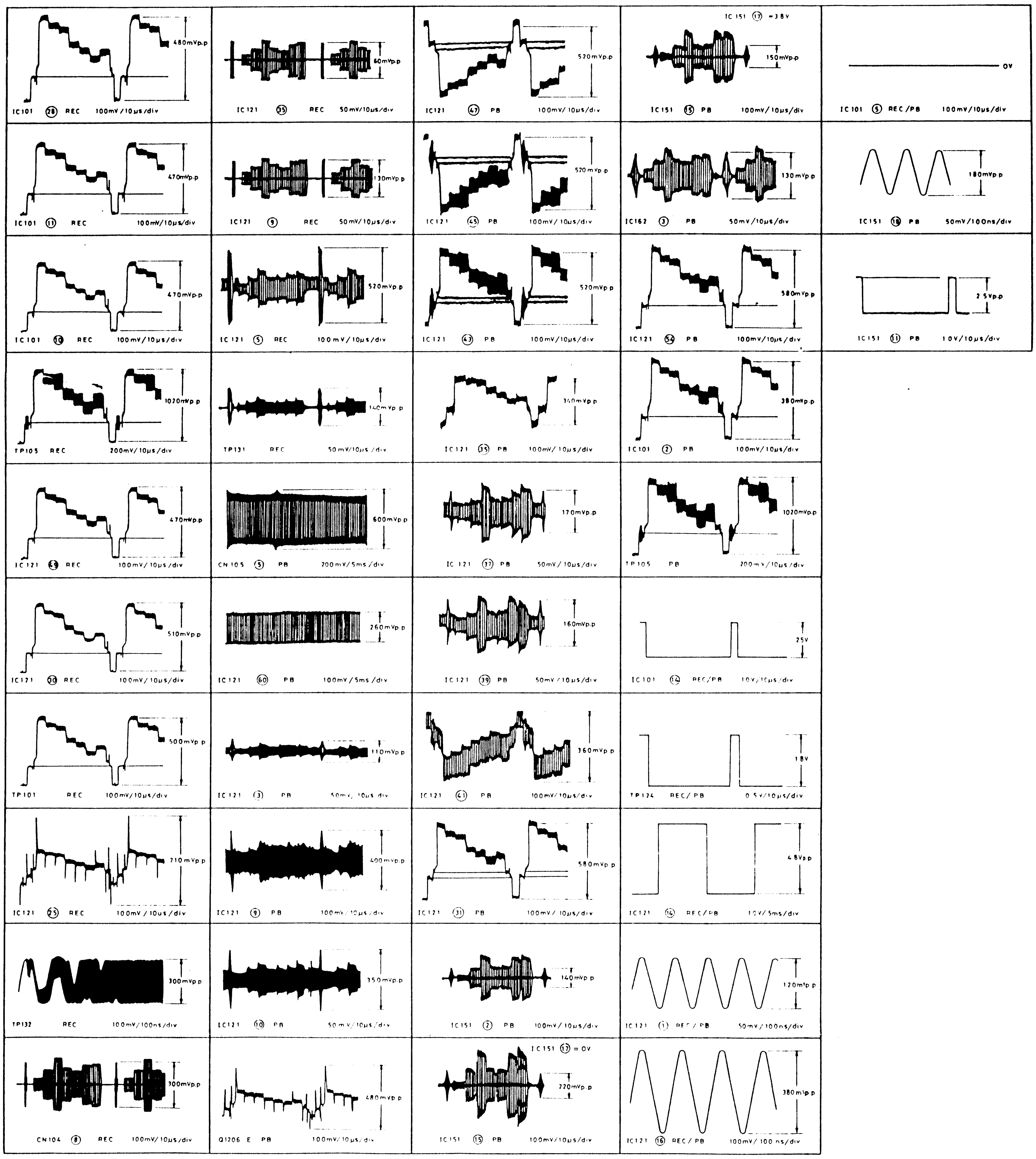
VD-1 BOARD SIDE B

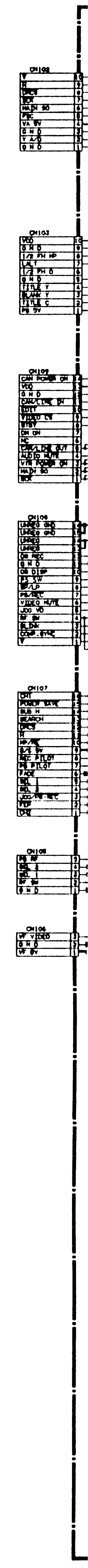

CN106
CN107
CN108
CN104
CN105
CN110
CN112
IC161
IC162
IC111
CXL1502M (PAL)
IC151
CXA1203M
X1201
L1082
F1082
F1083
VD1 SIDE B
17
18
19
20
21
22
23
24
25
26
27
28

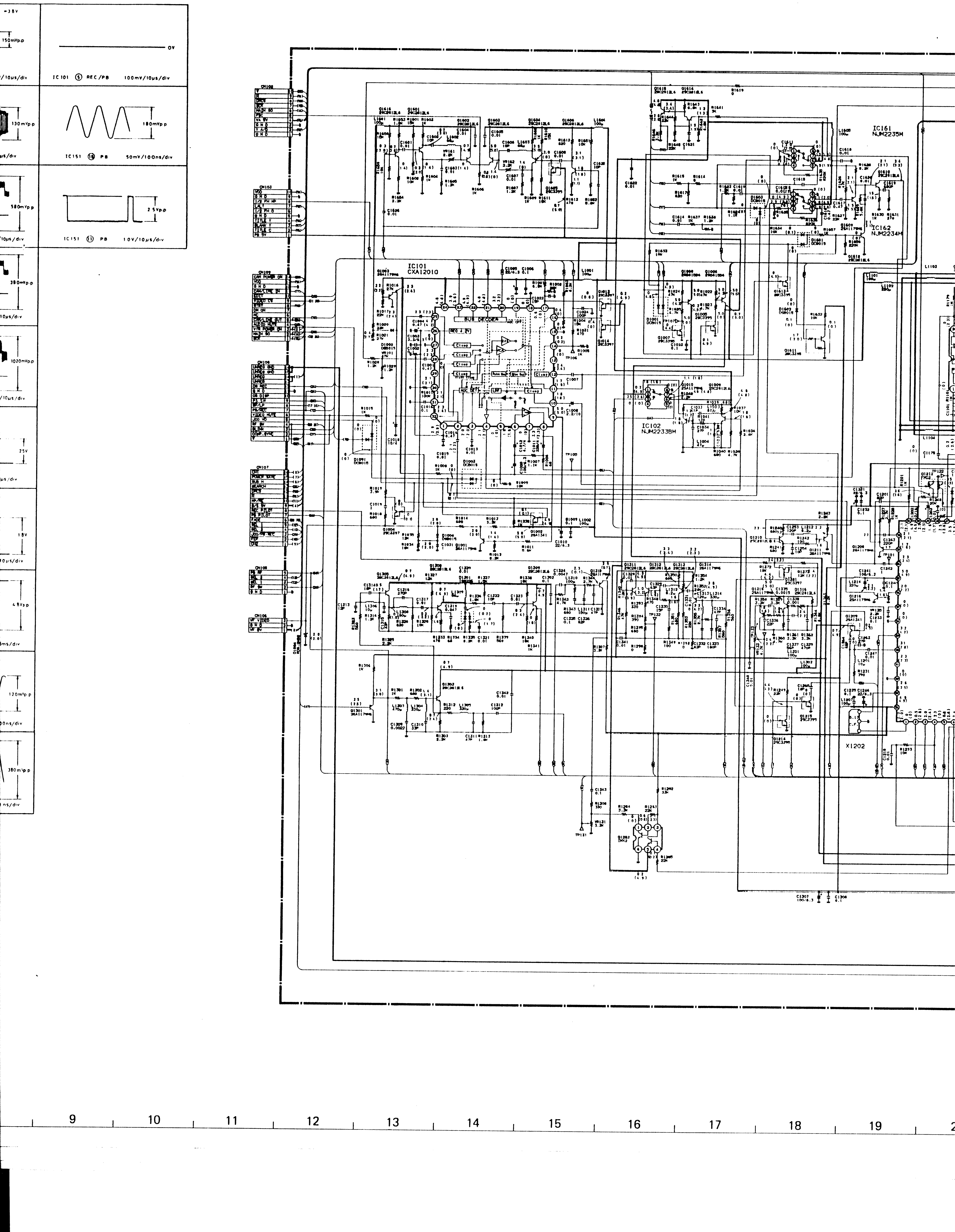
VD-1 BOARD SIDE B


CN107
CN108
CN105
CN109
CN110
CN112
CN113
IC161
IC162
IC111
CXL1502M (PAL)
IC151
CXA1203M
X1201
RQ VD1 SIDE B
20
21
22
23
24
25
26
27
28
29
30

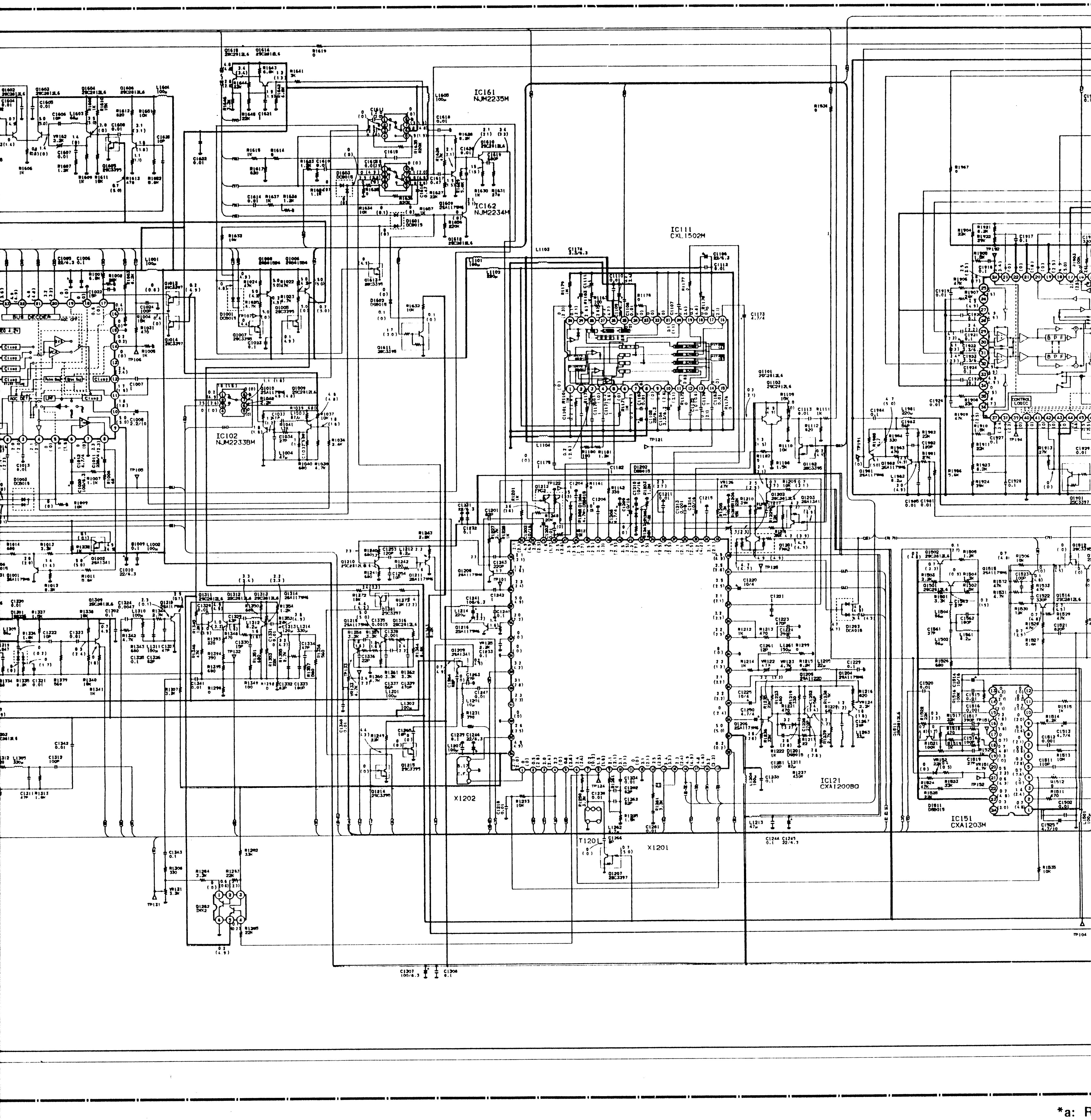
VD-1 BOARD (VIDEO/AUDIO)





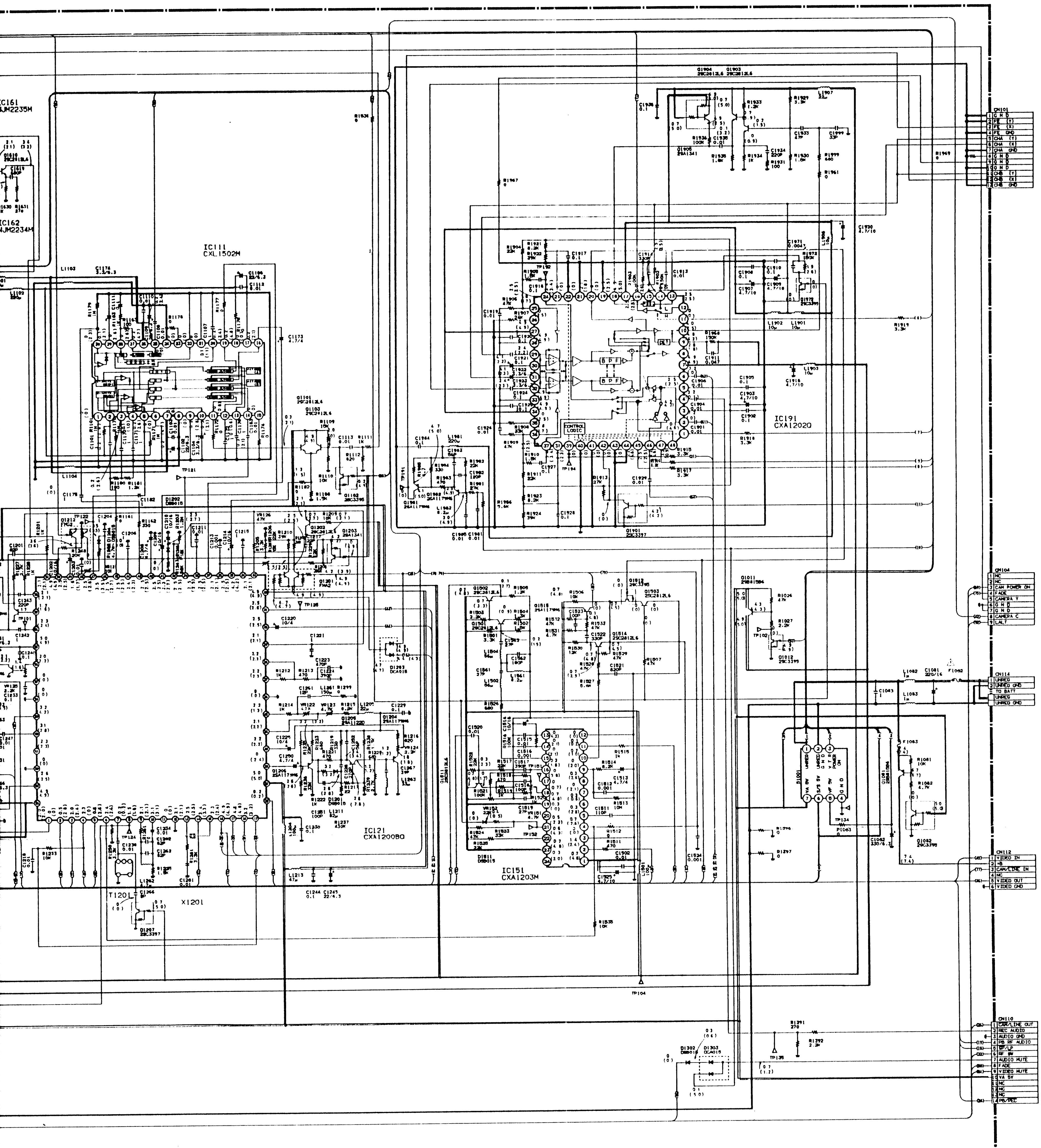

-38V
150mVp-p
/10µs/div
130mVp-p
µs/div
580mVp-p
/10µs/div
380mVp-p
10µs/div
1020mVp-p
/10µs/div
2.5V
µs/div
1.8V
0µs/div
4.8Vp-p
ms/div
120mVp-p
0ns/div
380mVp-p
ns/div
0V
IC101 ⑤ REC/PB 100mV/10µs/div
180mVp-p
IC151 ⑱ PB 50mV/100ns/div
2.5Vp-p
IC151 ⑪ PB 10V/10µs/div
CN102
V
H
DPC5
BCK
MAIN SO
PBC
VA 5V
GND
Y A/D
GND
CN103
VDD
GND
1/2 FH HP
LALT
1/2 FH D
GND
TITLE Y
BLANK Y
TITLE C
PB 5V
CN109
CAM POWER ON
VDD
GND
CAM/LINE IN
EDIT
VIDEO CV
STBY
DM ON
NC
CAM/LINE OUT
AUDIO MUTE
VTR POWER ON
MAIN SO
BCK
CN106
UNREG GND
UNREG GND
UNREG
UNREG
OS REC
GND
OS DISP
FS SW
SP/LP
PB/REC
VIDEO MUTE
JOG VD
RF SW
BLINK
COMP. SYNC
V
CN107
CHI
POWER SAVE
SUB H
SEARCH
DPC5
H
HP/REC
S/S 5V
REC PILOT
PB PILOT
FADE
SEL
SEL 2
JOG/PB·REC
PDP
CPS
CN108
PB RF
SEL 2
SEL 1
RF SW
GND
CN105
VF VIDEO
GND
VF 5V
D1004
RD5.2EB
IC101
CXA1201D
BUS DECODER
IC102
NJM2233BM
IC161
NJM2235M
IC162
NJM2234M
X1202
Q1301
2SA1179M6
Q1302
2SC2812L6
TP100
TP131
9
10
11
12
13
14
15
16
17
18
19

VD-1 CIRCUIT


IC161
NJM2235M
IC162
NJM2234M
IC111
CXL1502M
IC102
NJM2233BM
BUS DECODER
AGC DET
IC121
CXA1200BQ
X1202
X1201
T1201
IC151
CXA1203M
CONTROL LOGIC
BPF
14
15
16
17
18
19
20
21
22
23
24
25

*a: R
(b):

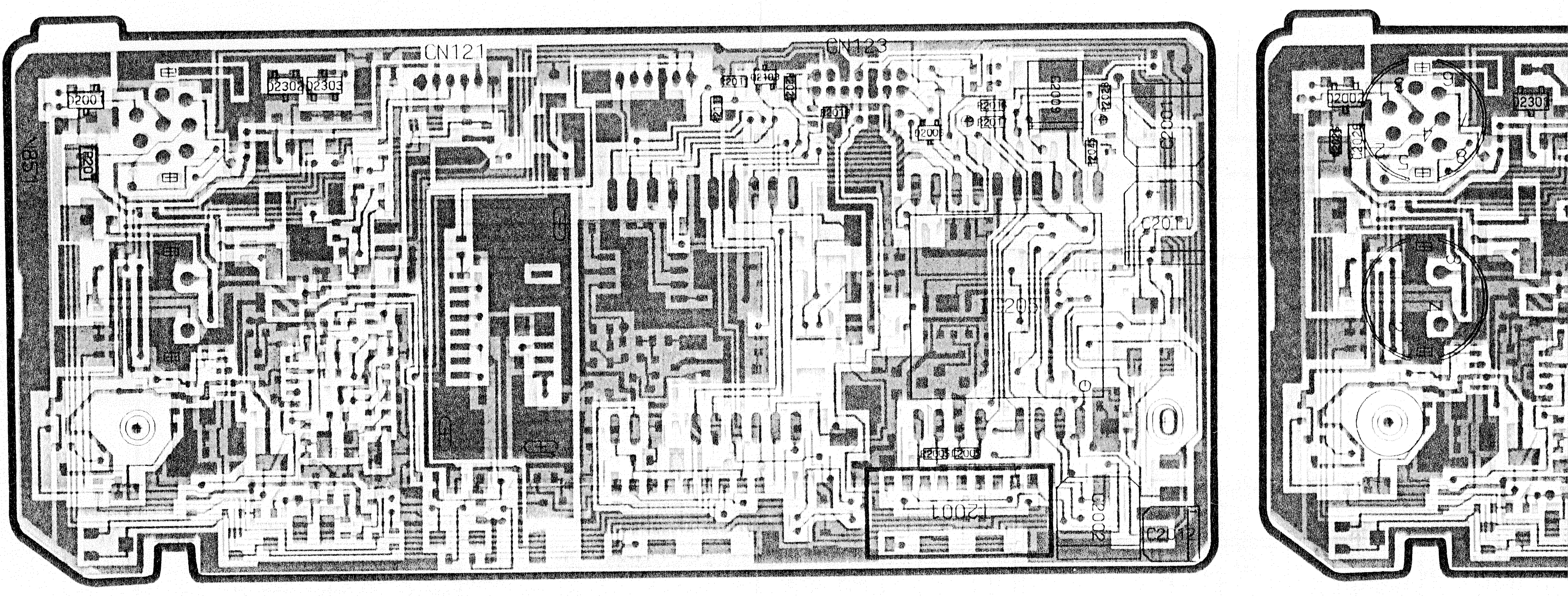
VD-1 CIRCUIT


IC161
NJM2235M
IC162
NJM2234M
IC111
CXL1502M
IC121
CXA1200BQ
IC151
CXA1203M
IC191
CXA1202Q
CONTROL LOGIC
BPF
X1201
T1201
D1001
VA 5V
S/S 5V
VF 5V
G N D
UNREG
POWER ON
F1062
F1063
TP104
TP121
TP191
CN101
1 G N D
2 FE (Y)
3 FE (X)
4 FE GND
5 CHA (Y)
6 CHA (X)
7 CHA GND
8 G N D
9 G N D
10 G N D
11 CHB (Y)
12 CHB (X)
13 CHB GND
CN104
1 NC
2 NC
3 CAM POWER ON
4 FADE
5 CAMERA Y
6 G N D
7 G N D
8 CAMERA C
9 LALT
CN114
1 UNREG
2 UNREG GND
TO BATT
UNREG
UNREG GND
CN112
1 VIDEO IN
2 +B
3 CAM/LINE IN
4 NC
5 VIDEO OUT
6 VIDEO GND
CN110
1 CAM/LINE OUT
2 REC AUDIO
3 AUDIO GND
4 PB RF AUDIO
5 SP/LP
6 RF SW
7 AUDIO MUTE
8 FADE
9 VIDEO MUTE
10 VA 5V
11 NC
12 NC
13 NC
14 PB/REC
G

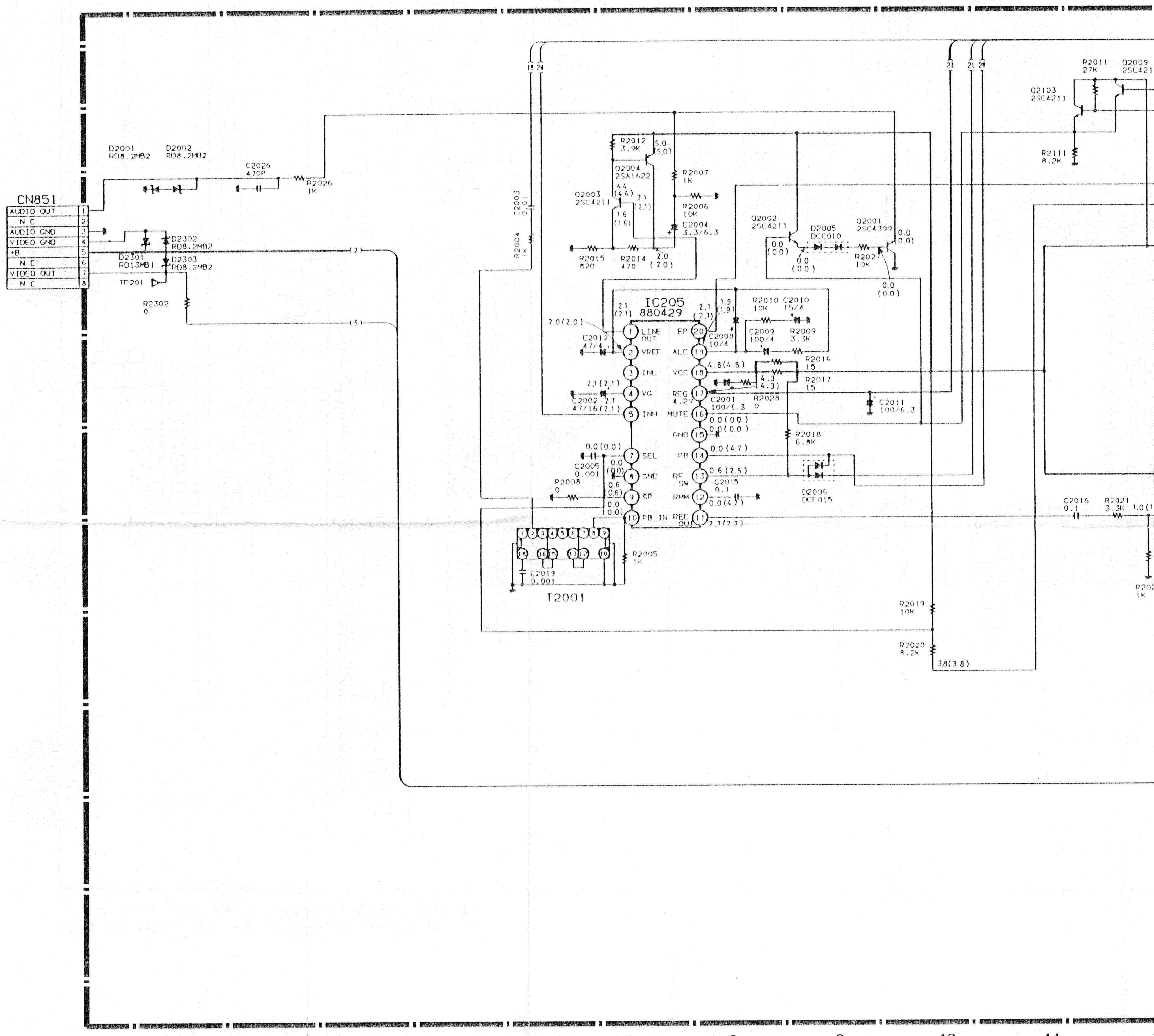
*a: REC MODE (Recording of the color bar chart)
(b): PB MODE (Playback of the above recording tape)

19 20 21 22 23 24 25 26 27 28 29 30

VD-2 BOARD SIDE A

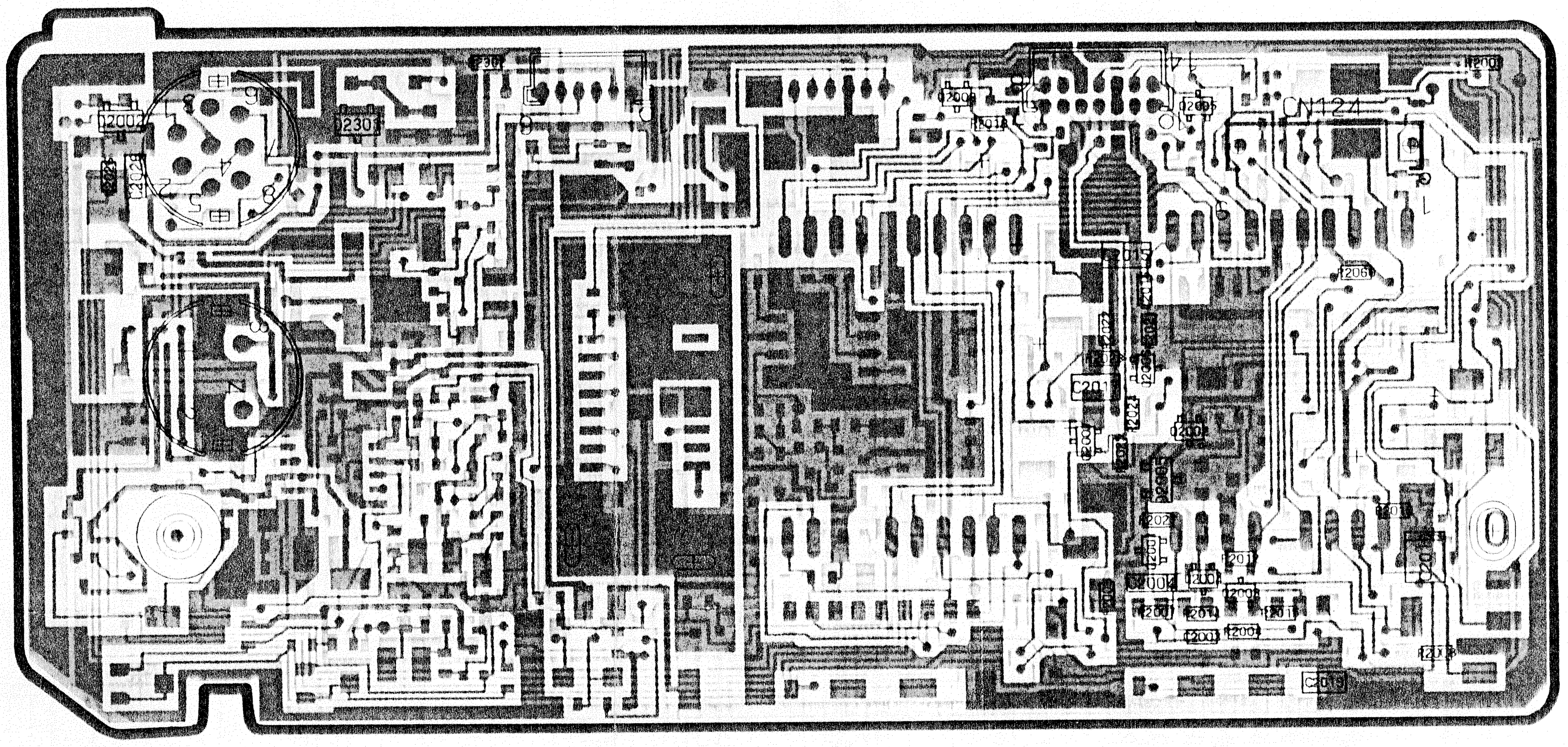

CN121
CN123
CN851
D2302
D2303
T2001
C2012

VD-2 CIRCUIT

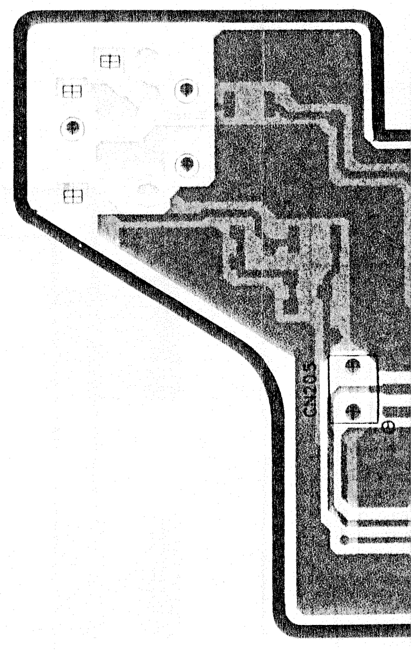

CN851
AUDIO OUT
N C
AUDIO GND
VIDEO GND
+B
N C
VIDEO OUT
N C
D2001 RD8.2MB2
D2002 RD8.2MB2
C2026 470P
R2026 1K
D2302 RD8.2MB2
D2301 RD13MB1
D2303 RD8.2MB2
TP201
R2302 0
C2003 0.01
R2004 1K
R2012 3.9K
Q2004 2SA1622
Q2003 2SC4211
R2007 1K
R2006 10K
C2004 3.3/6.3
R2015 820
R2014 470
Q2002 2SC4211
D2005 DCC010
Q2001 2SC4399
R2027 10K
IC205 880429
LINE OUT
VREF
INL
VG
INH
SEL
GND
SP
PB IN
EP
ALC
VCC
REG 4.2V
MUTE
GND
PB
RF SW
RMM
REC OUT
C2012 47/4
C2002 47/16
C2005 0.001
R2008 0
C2008 10/4
R2010 10K
C2010 15/4
C2009 100/4
R2009 3.3K
R2016 15
R2017 15
C2001 100/6.3
R2028 0
C2011 100/6.3
R2018 6.8K
D2006 DCF015
C2015 0.1
T2001
C2019 0.001
R2005 1K
R2019 10K
R2020 8.2K
3.8(3.8)
R2011 27K
Q2009 2SC421
Q2103 2SC4211
R2111 8.2K
C2016 0.1
R2021 3.3K

VD-2 BOARD SIDE A

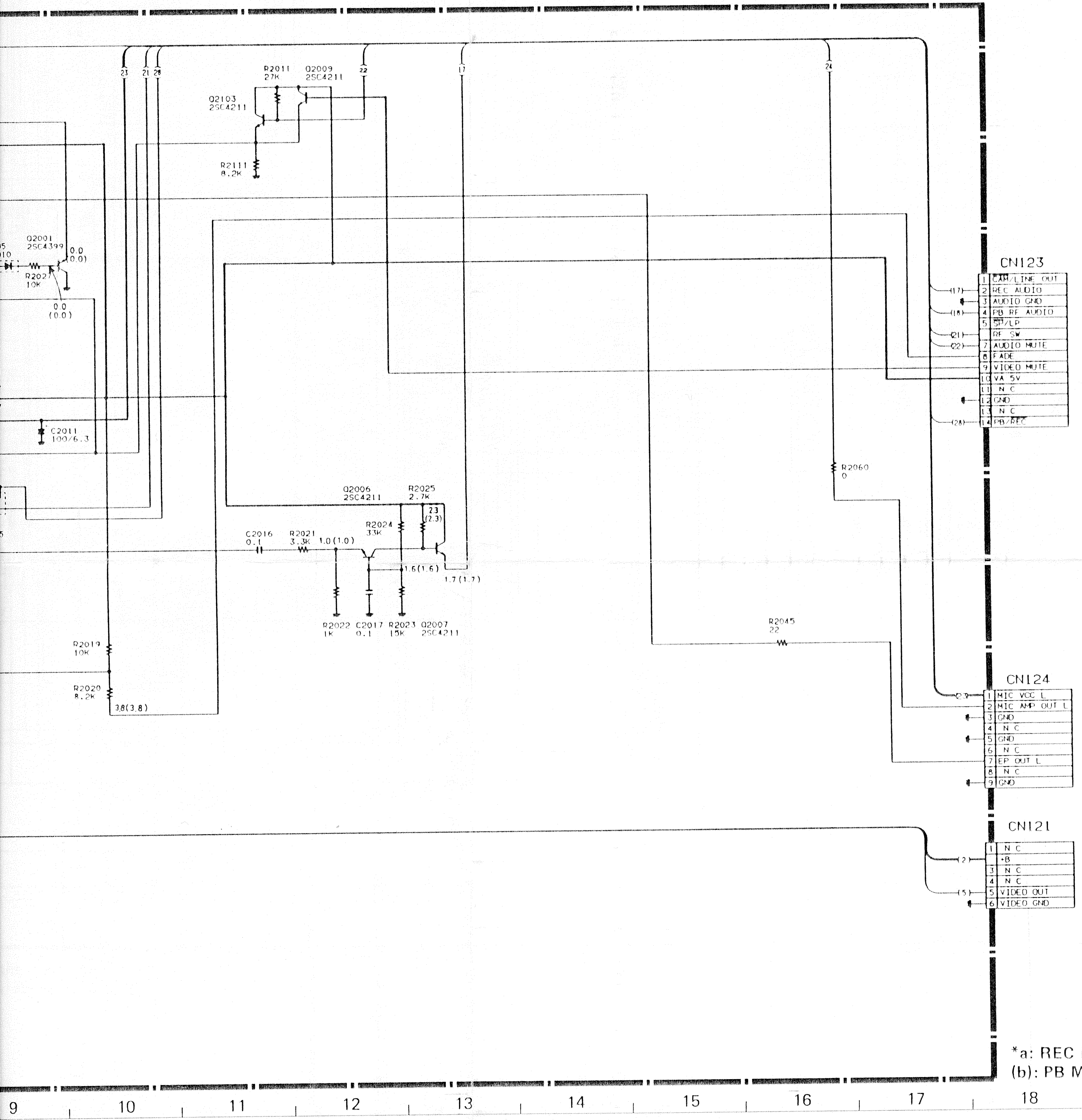
C2112
Q2001


Q2002
Q2301
CN124
C2011
Q2006
Q2007
Q2004
C2019

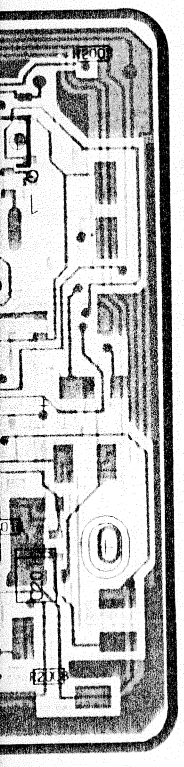
D



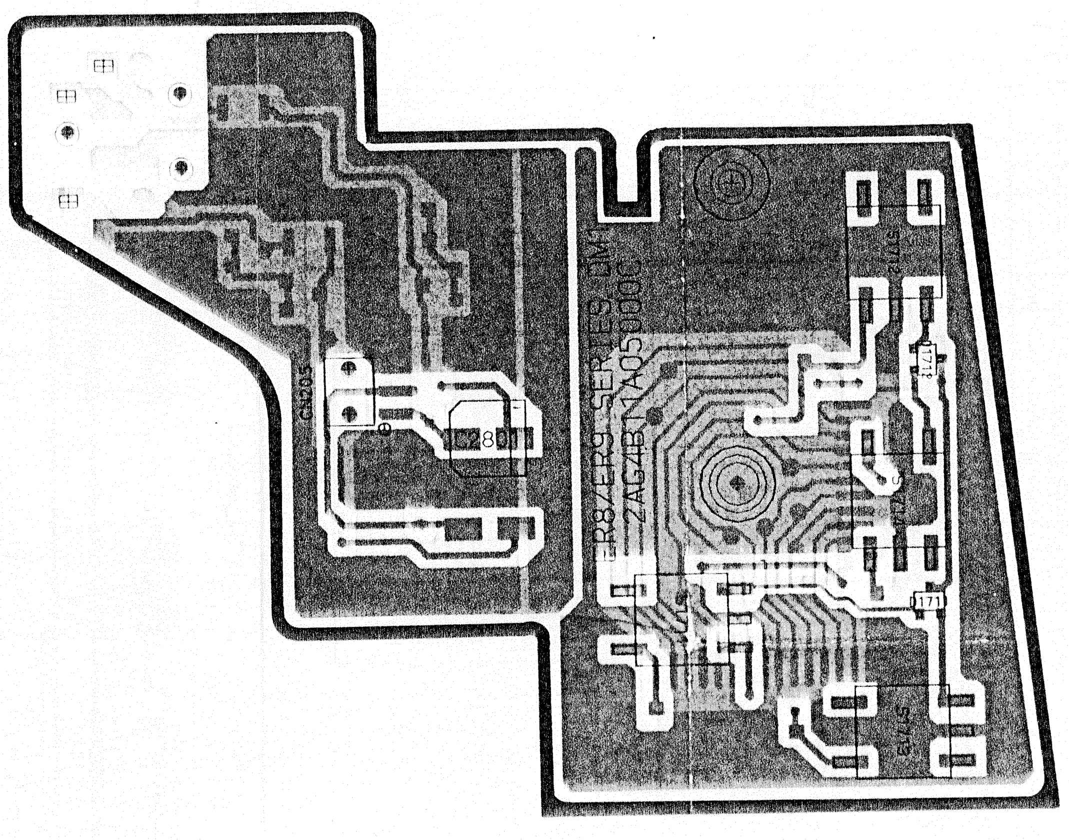
VD-2 CIRCUIT


23
21
28
22
17
24
R2011
27K
Q2009
2SC4211
Q2103
2SC4211
R2111
8.2K
Q2001
2SC4399
0.0
(0.0)
R2027
10K
0.0
(0.0)
C2011
100/6.3
Q2006
2SC4211
R2025
2.7K
2.3
(2.3)
R2024
33K
C2016
0.1
R2021
3.3K
1.0(1.0)
1.6(1.6)
1.7(1.7)
R2022
1K
C2017
0.1
R2023
15K
Q2007
2SC4211
R2019
10K
R2020
8.2K
3.8(3.8)
R2060
0
R2045
22
CN123
1 CAM/LINE OUT
(17) 2 REC AUDIO
3 AUDIO GND
(18) 4 PB RF AUDIO
5 SP/LP
(21) RF SW
(22) 7 AUDIO MUTE
8 FADE
9 VIDEO MUTE
10 VA 5V
11 N C
12 GND
13 N C
(28) 14 PB/REC
CN124
(23) 1 MIC VCC L
2 MIC AMP OUT L
3 GND
4 N C
5 GND
6 N C
7 EP OUT L
8 N C
9 GND
CN121
1 N C
(2) +B
3 N C
4 N C
(5) 5 VIDEO OUT
6 VIDEO GND
9
10
11
12
13
14
15
16
17
18
19
20

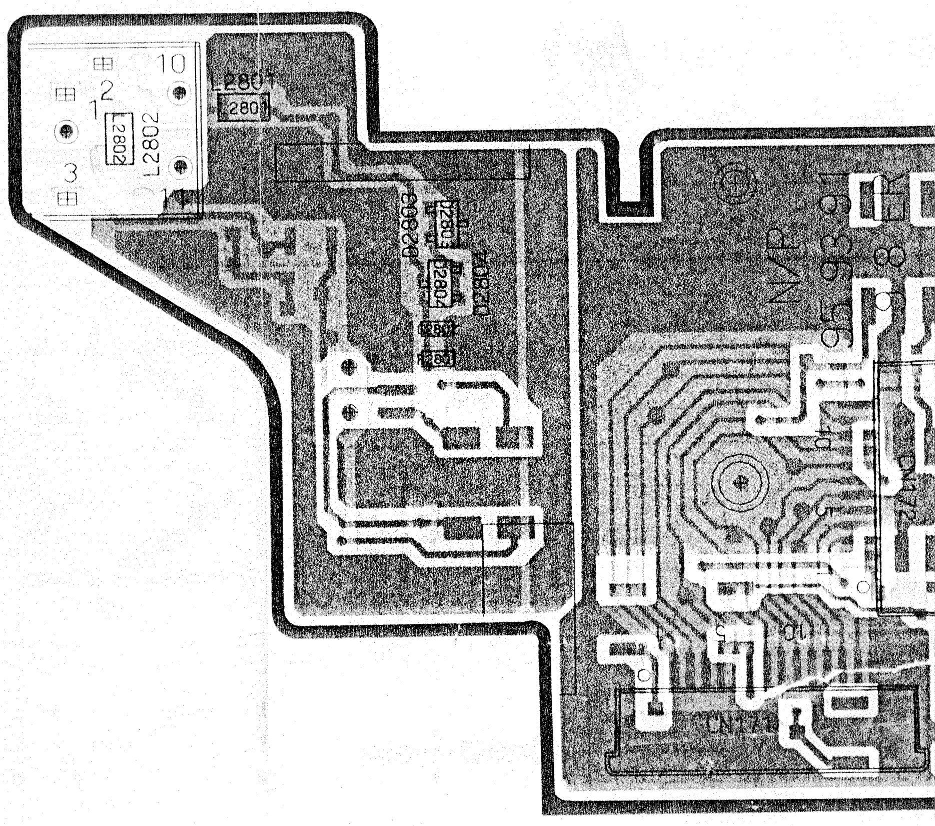
*a: REC MODE
(b): PB MODE

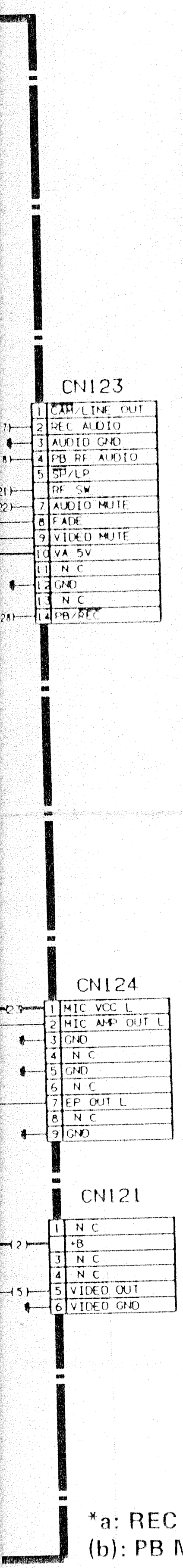


DM-1 BOARD SIDE A

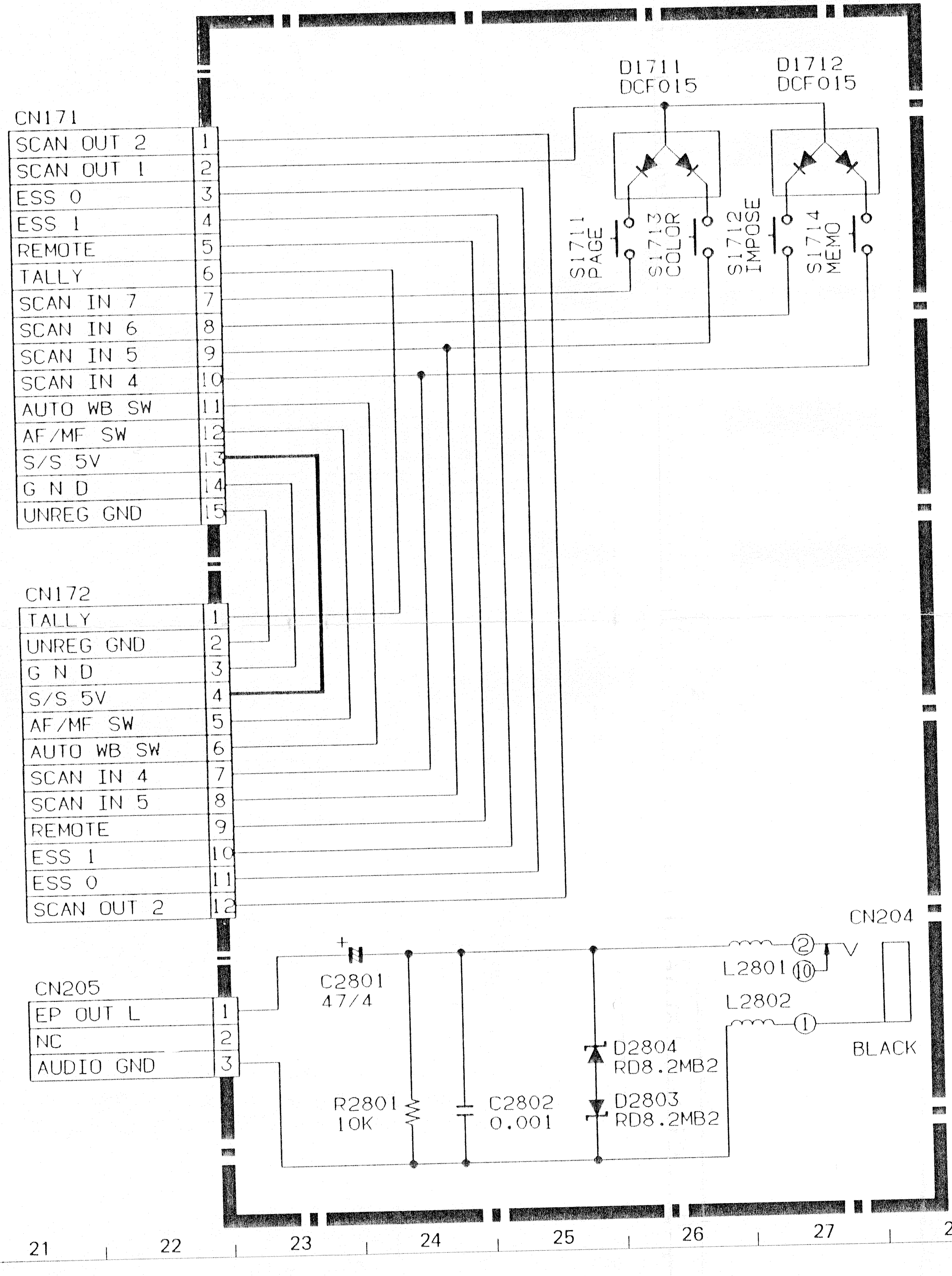

CN205
2801
ER8/ER9 SERIES DM-1
2AG4B11A05000C
S1713
S1711
D1711

DM-1 BOARD SIDE B


10
2
1
3
L2802
2802
L2801
2801
D2803
D2804
2804
2801
2802
N/P
95.93.91
CN171

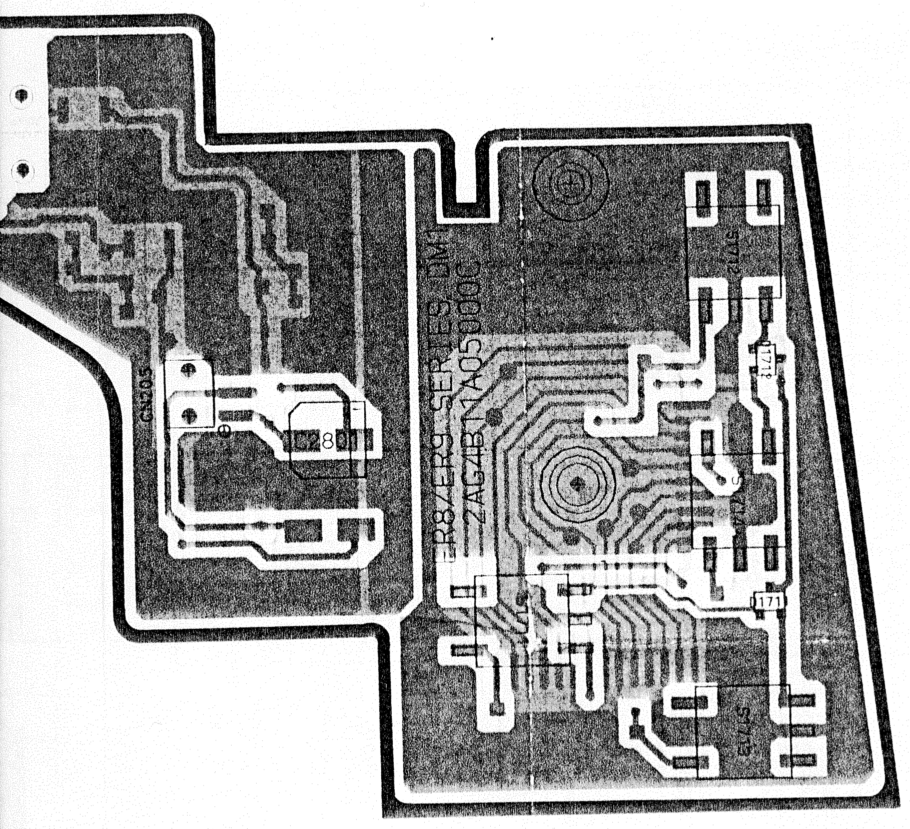

CN123
1 CAM/LINE OUT
2 REC AUDIO
3 AUDIO GND
4 PB RF AUDIO
5 SP/LP
RF SW
7 AUDIO MUTE
8 FADE
9 VIDEO MUTE
10 VA 5V
11 N C
12 GND
13 N C
14 PB/REC
(7)
(8)
(21)
(22)
(28)
CN124
1 MIC VCC L
2 MIC AMP OUT L
3 GND
4 N C
5 GND
6 N C
7 EP OUT L
8 N C
9 GND
(2)
CN121
1 N C
+B
3 N C
4 N C
5 VIDEO OUT
6 VIDEO GND
(2)
(5)

DM-1 CIRCUIT

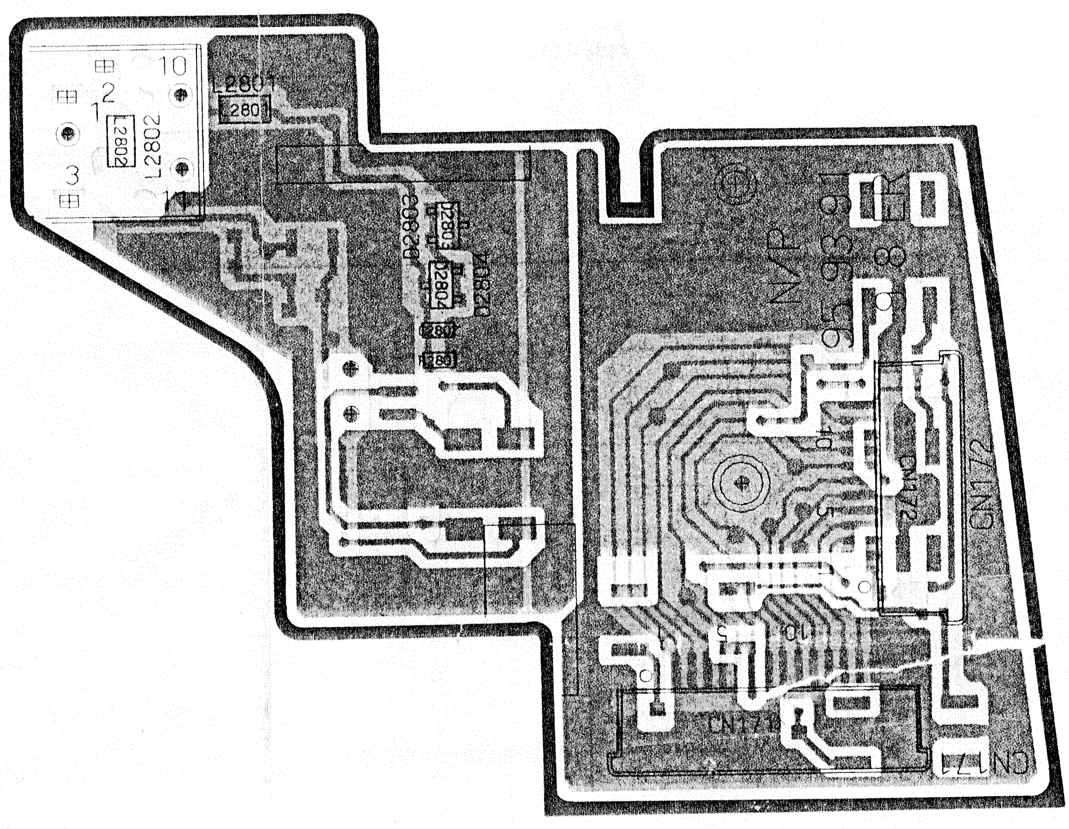

CN171
SCAN OUT 2 1
SCAN OUT 1 2
ESS 0 3
ESS 1 4
REMOTE 5
TALLY 6
SCAN IN 7 7
SCAN IN 6 8
SCAN IN 5 9
SCAN IN 4 10
AUTO WB SW 11
AF/MF SW 12
S/S 5V 13
G N D 14
UNREG GND 15
CN172
TALLY 1
UNREG GND 2
G N D 3
S/S 5V 4
AF/MF SW 5
AUTO WB SW 6
SCAN IN 4 7
SCAN IN 5 8
REMOTE 9
ESS 1 10
ESS 0 11
SCAN OUT 2 12
CN205
EP OUT L 1
NC 2
AUDIO GND 3
D1711
DCF015
D1712
DCF015
S1711
PAGE
S1713
COLOR
S1712
IMPOSE
S1714
MEMO
C2801
47/4
R2801
10K
C2802
0.001
D2804
RD8.2MB2
D2803
RD8.2MB2
L2801
L2802
2
10
1
V
CN204
BLACK
18
19
20
21
22
23
24
25
26
27
28
29

*a: REC MODE
(b): PB MODE

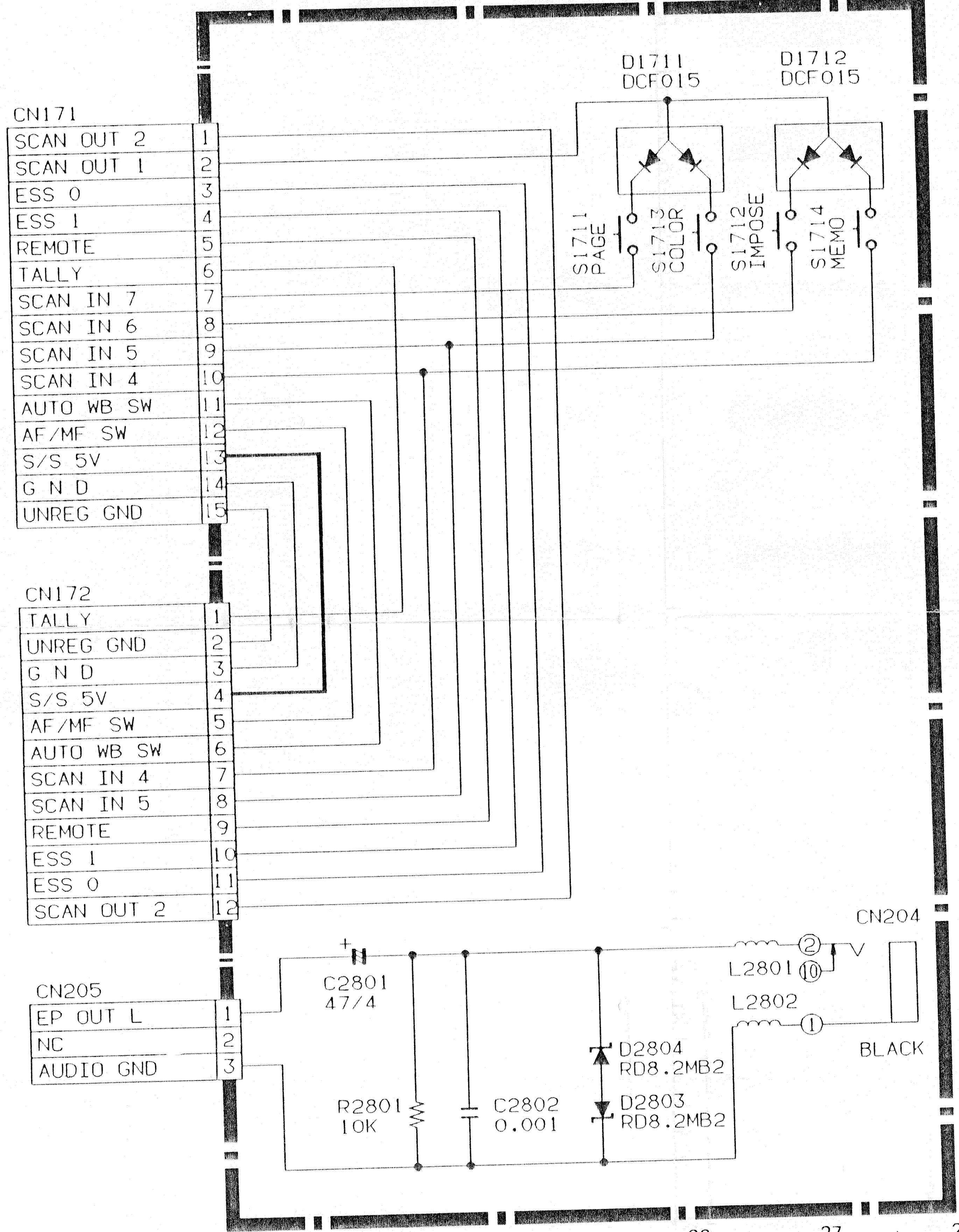
DM-1 BOARD SIDE A


CN205
ER8/ER9 SERIES DM1
2AG4B11A05000C
S1713
S1711

DM-1 BOARD SIDE B


10
2
1
3
L2802
L2801
D2803
D2804
N/P
95 93 91
8 ER
CN172
CN171

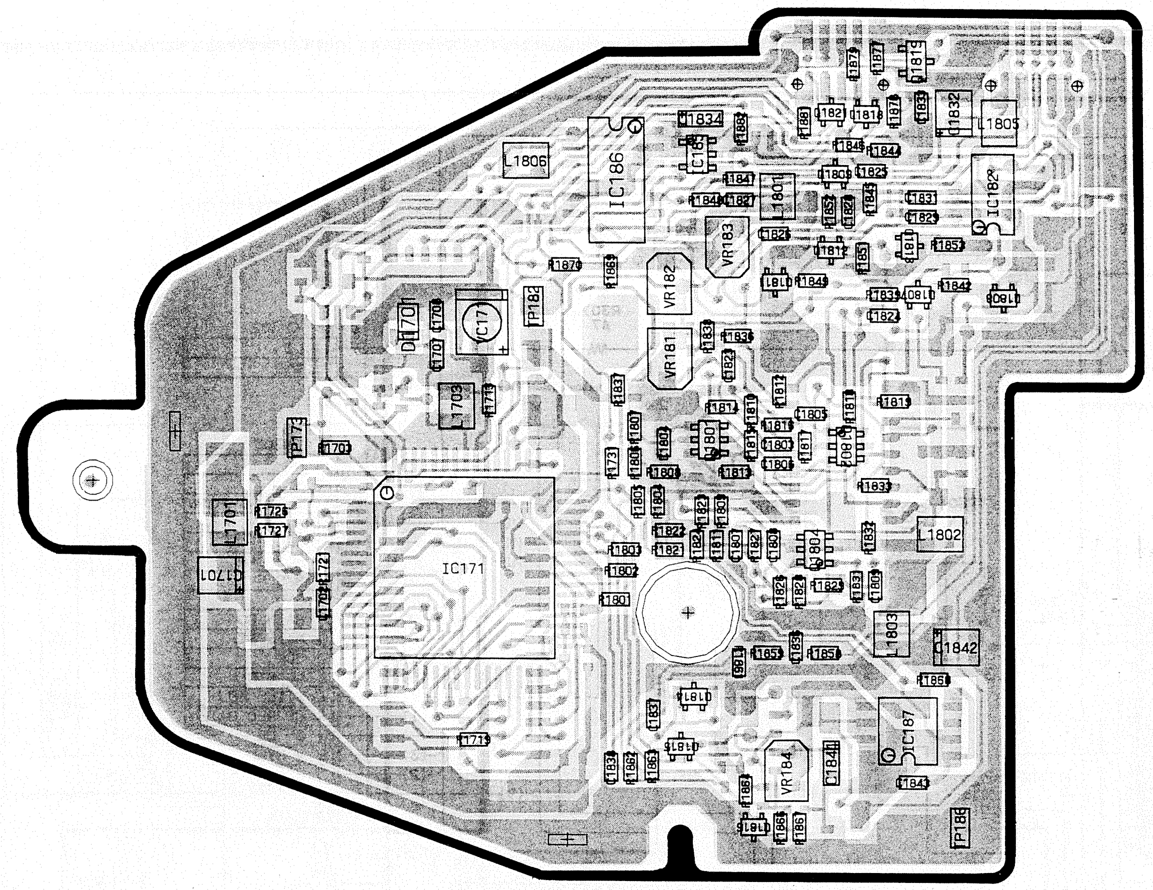
DM-1 CIRCUIT


CN171
SCAN OUT 2 1
SCAN OUT 1 2
ESS 0 3
ESS 1 4
REMOTE 5
TALLY 6
SCAN IN 7 7
SCAN IN 6 8
SCAN IN 5 9
SCAN IN 4 10
AUTO WB SW 11
AF/MF SW 12
S/S 5V 13
G N D 14
UNREG GND 15
CN172
TALLY 1
UNREG GND 2
G N D 3
S/S 5V 4
AF/MF SW 5
AUTO WB SW 6
SCAN IN 4 7
SCAN IN 5 8
REMOTE 9
ESS 1 10
ESS 0 11
SCAN OUT 2 12
CN205
EP OUT L 1
NC 2
AUDIO GND 3
D1711
DCF015
D1712
DCF015
S1711
PAGE
S1713
COLOR
S1712
IMPOSE
S1714
MEMO
C2801
47/4
R2801
10K
C2802
0.001
D2804
RD8.2MB2
D2803
RD8.2MB2
L2801
L2802
CN204
BLACK
20
21
22
23
24
25
26
27
28
29
30

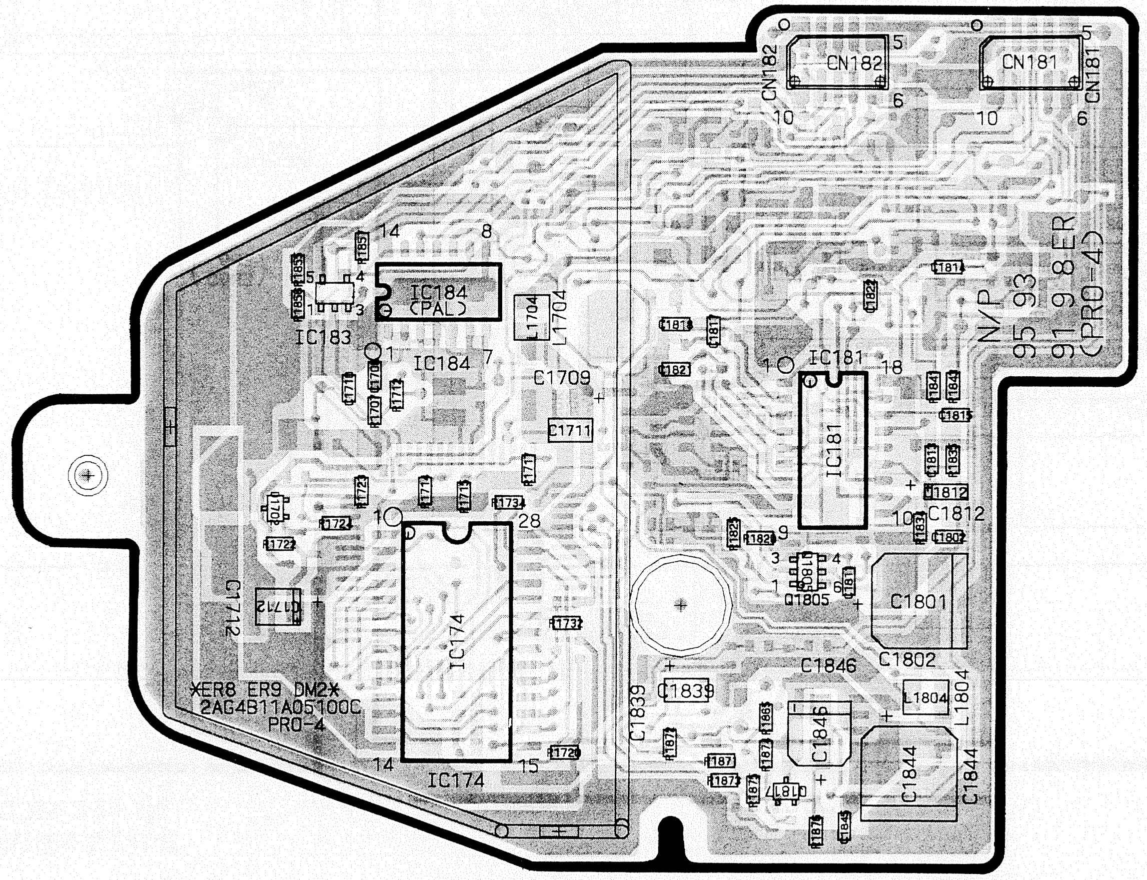
of the
the a

6

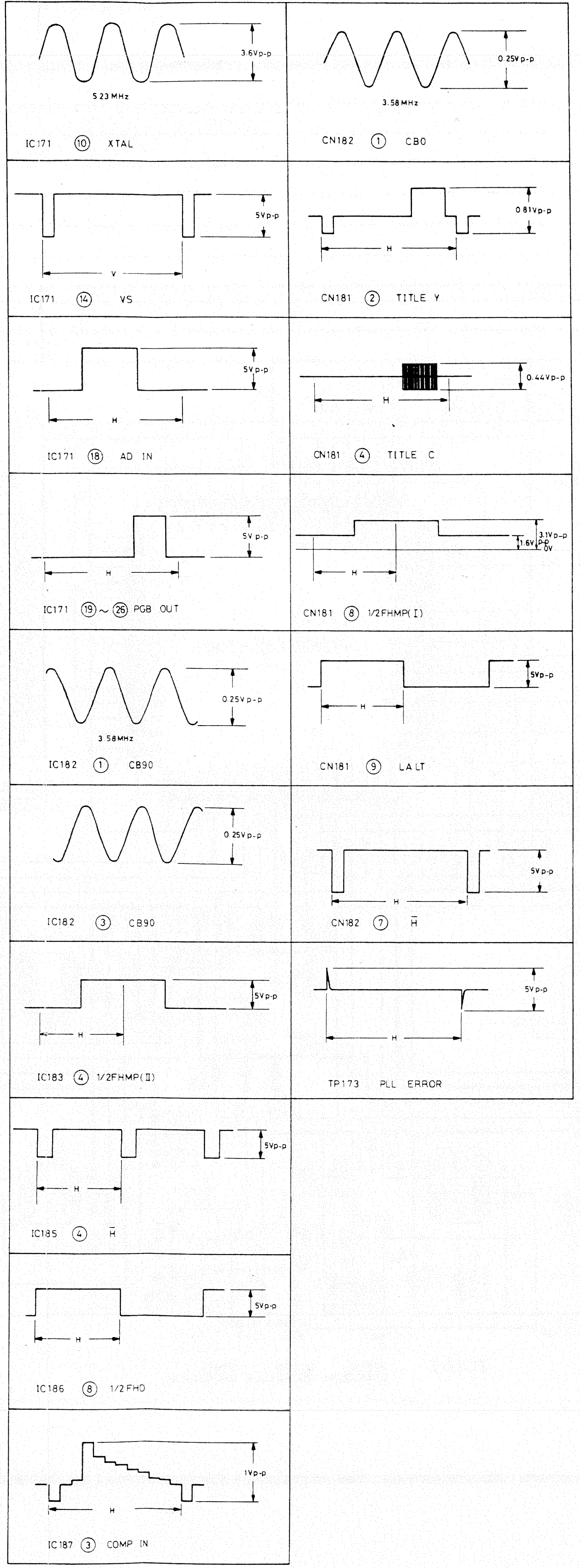
DM-2 BOARD SIDE A

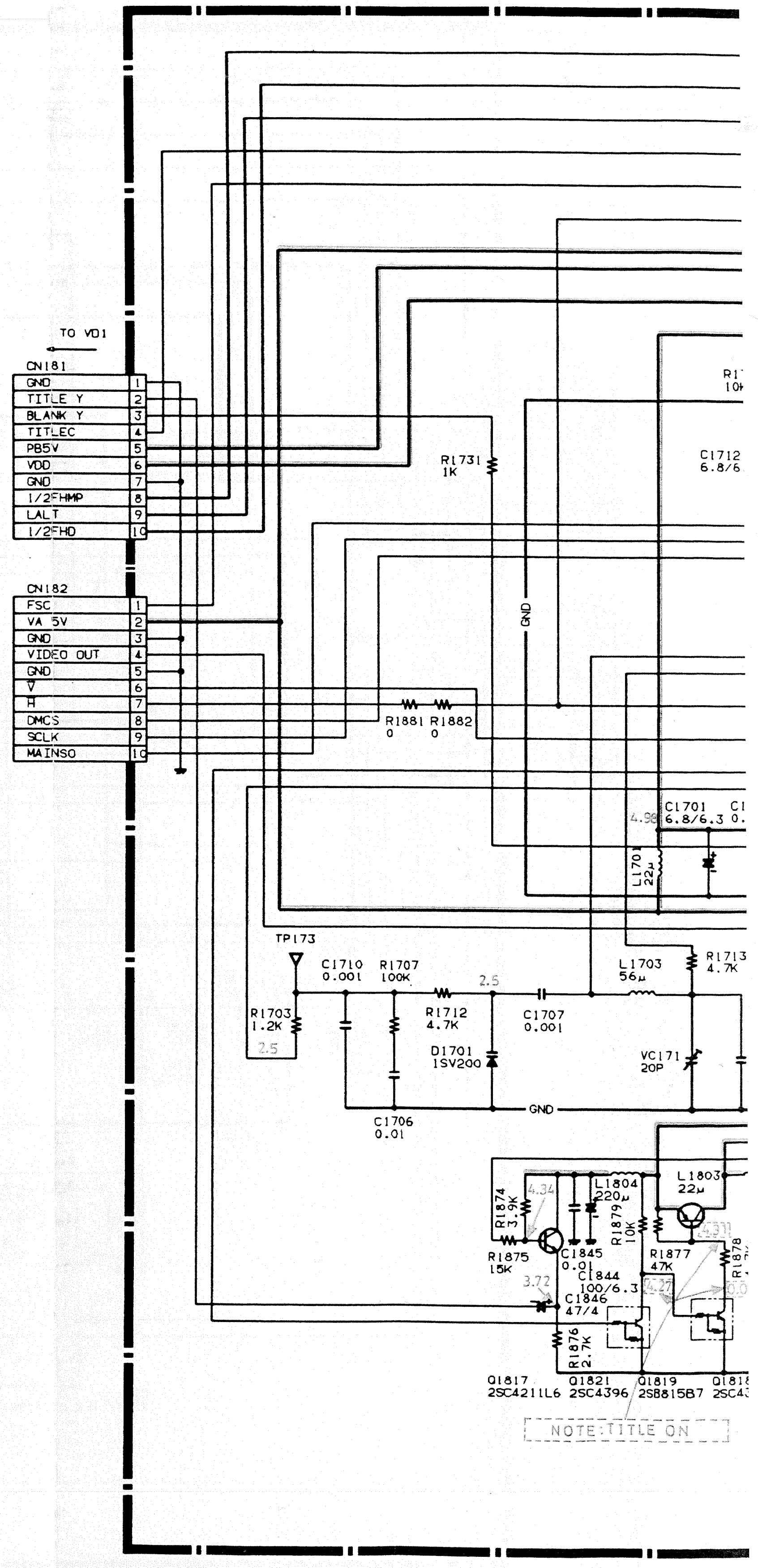

IC186
L1806
IC171
IC182
IC187
VR181
VR182
VR183
VR184
L1805
L1802
TP182
TP173
TP186
IC17
L1703
L1701
C1701
D1701
C1842
L1803

DM-2 BOARD SIDE B

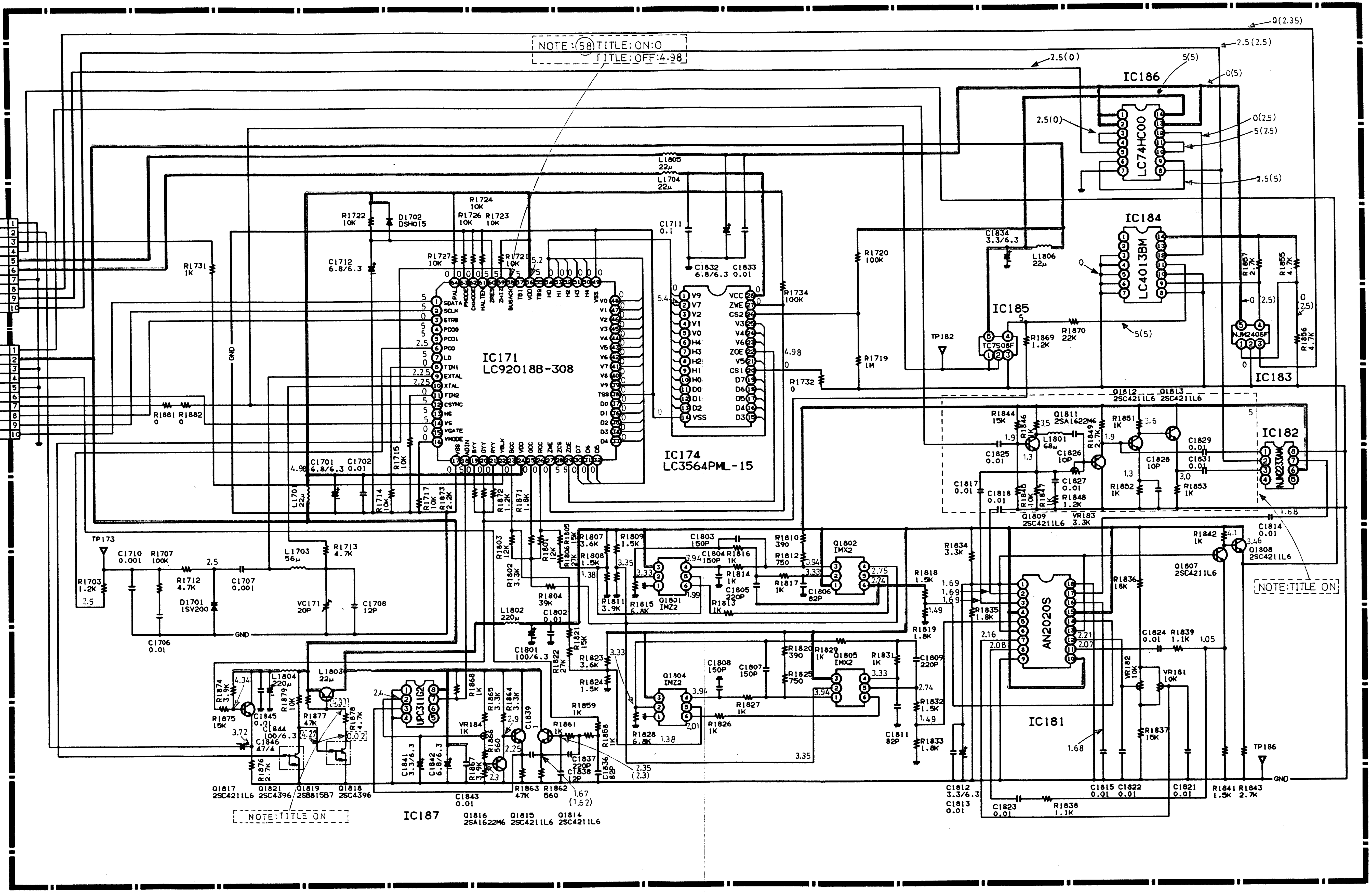

CN182
CN181
IC184 (PAL)
IC183
IC184
IC181
IC174
C1709
C1711
C1712
C1801
C1802
C1812
C1839
C1844
C1846
L1804
L1704
Q1805
N/P 95 93 91 98ER (PRO-45)
XER8 ER9 DM2X 2AG4B11A05100C PRO-4

DM-2 BOARD




TO VD1
CN181
GND 1
TITLE Y 2
BLANK Y 3
TITLEC 4
PB5V 5
VDD 6
GND 7
1/2FHMP 8
LALT 9
1/2FHD 10
CN182
FSC 1
VA 5V 2
GND 3
VIDEO OUT 4
GND 5
V 6
H 7
DMCS 8
SCLK 9
MAINSO 10
R1731 1K
C1712 6.8/6
GND
R1881 0
R1882 0
C1701 6.8/6.3
L1701 22μ
TP173
C1710 0.001
R1707 100K
R1712 4.7K
C1707 0.001
L1703 56μ
R1713 4.7K
R1703 1.2K
D1701 1SV200
VC171 20P
C1706 0.01
GND
2.5
R1874 3.9K
L1804 220μ
L1803 22μ
R1879 10K
R1875 15K
C1845 0.01
C1844 100/6.3
C1846 47/4
R1877 47K
R1876 2.7K
Q1817 2SC4211L6
Q1821 2SC4396
Q1819 2SB815B7
NOTE: TITLE ON

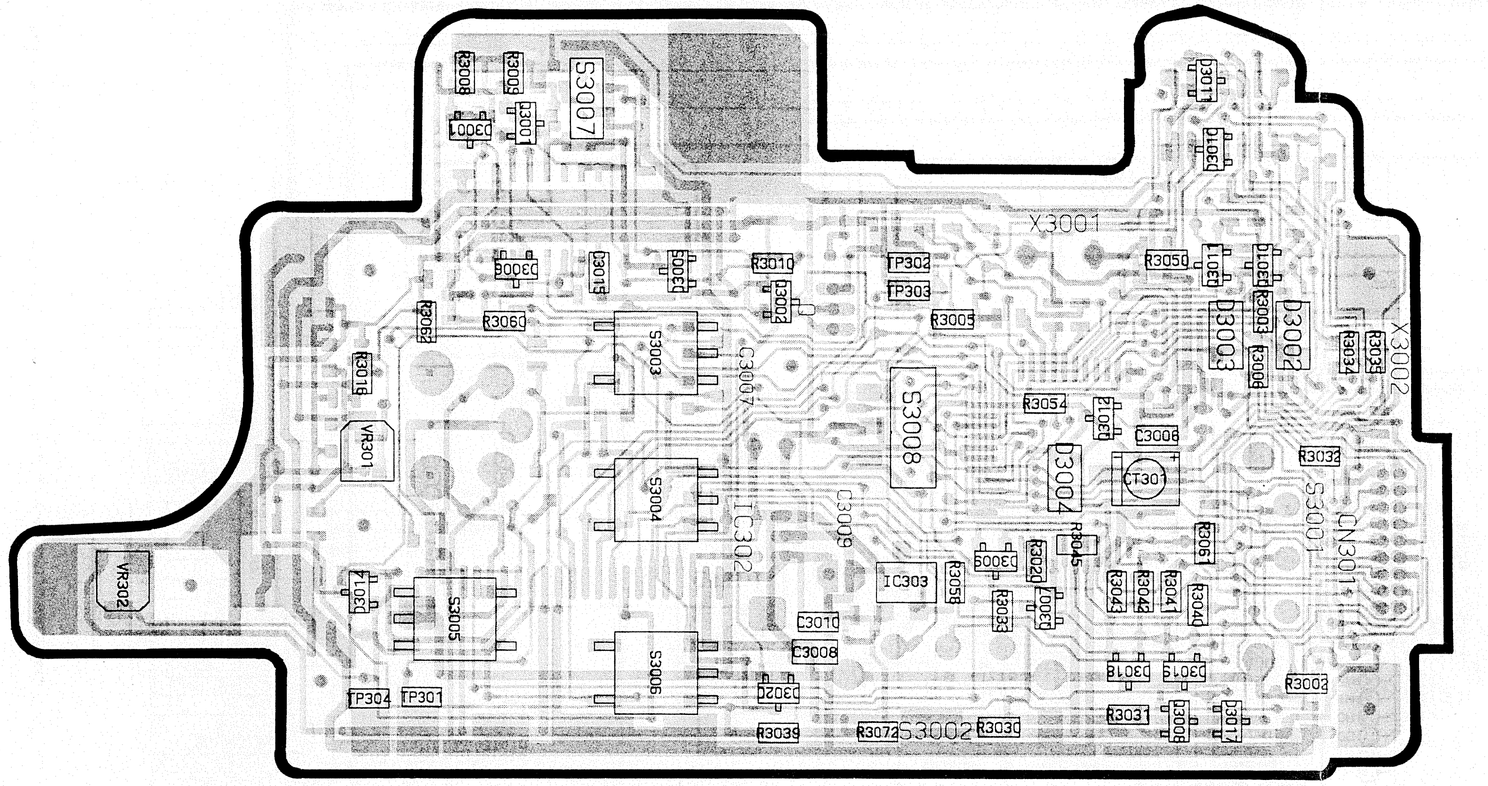
DM-2 CIRCUIT


NOTE:(58)TITLE:ON:0
TITLE:OFF:4.98
TO VD1
CN181
GND
TITLE Y
BLANK Y
TITLEC
PB5V
VDD
GND
1/2FHMP
LALT
1/2FHD
CN182
FSC
VA 5V
GND
VIDEO OUT
GND
V
H
DMCS
SCLK
MAINSO
IC171
LC92018B-308
SDATA
SCLK
STRB
PC00
PC01
PC0
LD
TDN1
EXTAL
XTAL
TDN2
CSYNC
HS
VS
VGATE
VMODE
IC174
LC3564PML-15
VCC
ZWE
CS2
V3
V4
V6
ZOE
V5
CS1
D7
D6
D5
D4
D3
V9
V7
V2
V1
V0
H4
H3
H2
H1
H0
D0
D1
D2
VSS
IC186
LC74HC00
IC184
LC4013BM
IC185
TC7S08F
IC183
NJM2406F
IC182
NJM2234M
IC181
AN2020S
IC187
UPC311G2
TP173
TP182
TP186
D1701
1SV200
D1702
DSH015
VC171
20P
L1805
22μ
L1704
22μ
L1703
56μ
L1802
220μ
L1803
22μ
L1804
220μ
L1806
22μ
L1801
68μ
L1701
22μ
Q1801 IMZ2
Q1802 IMX2
Q1804 IMZ2
Q1805 IMX2
Q1807 2SC4211L6
Q1808 2SC4211L6
Q1809 2SC4211L6
Q1811 2SA1622M6
Q1812 2SC4211L6
Q1813 2SC4211L6
Q1814 2SC4211L6
Q1815 2SC4211L6
Q1816 2SA1622M6
Q1817 2SC4211L6
Q1818 2SC4396
Q1819 2SB815B7
Q1821 2SC4396
VR181 10K
VR182 10K
VR183 3.3K
VR184 1K
NOTE:TITLE ON
NOTE:TITLE ON
GND
0(2.35)
2.5(2.5)
2.5(0)
5(5)
0(5)
0(2.5)
5(2.5)
2.5(5)
2.35
(2.3)
1.67
(1.62)

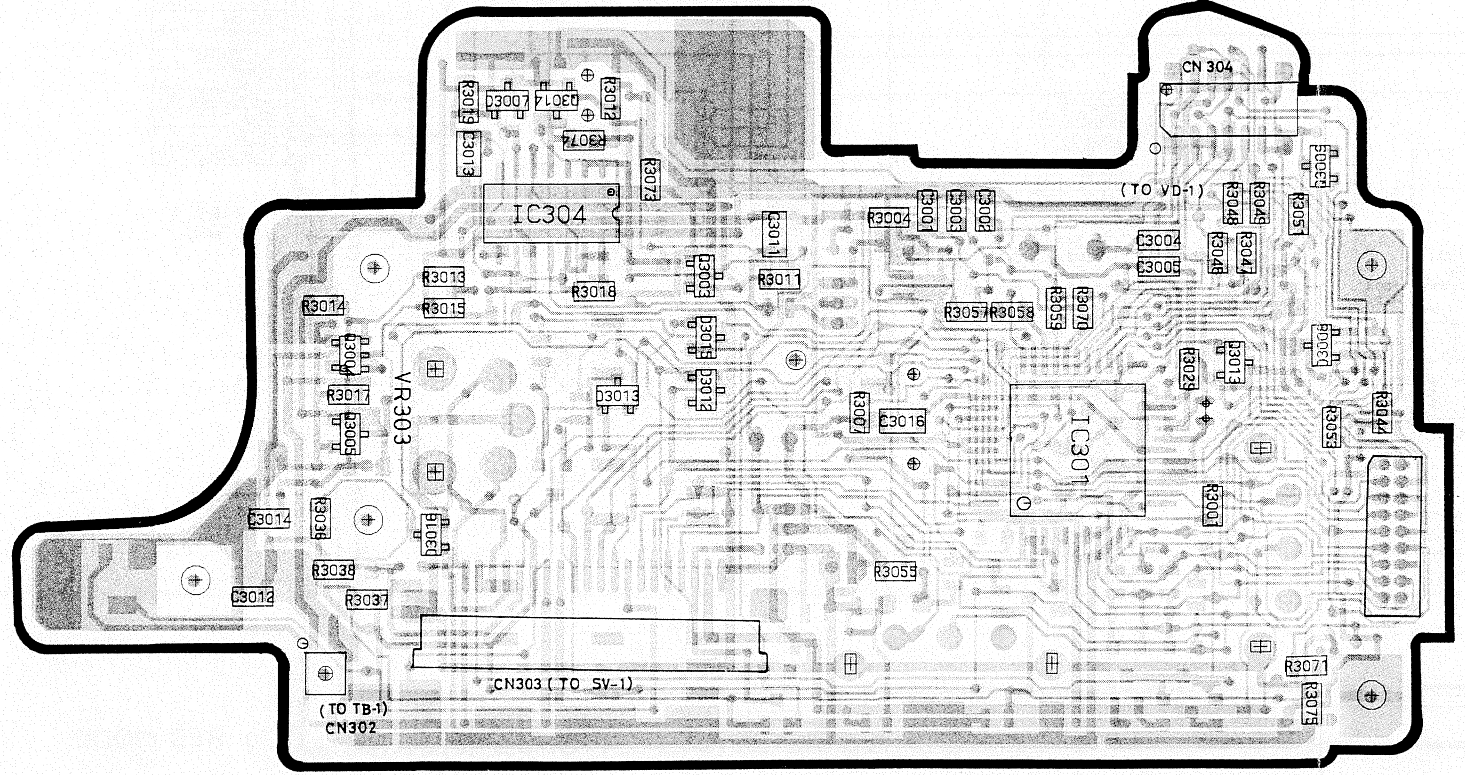
*a: REC MODE
(b): PB MODE

12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

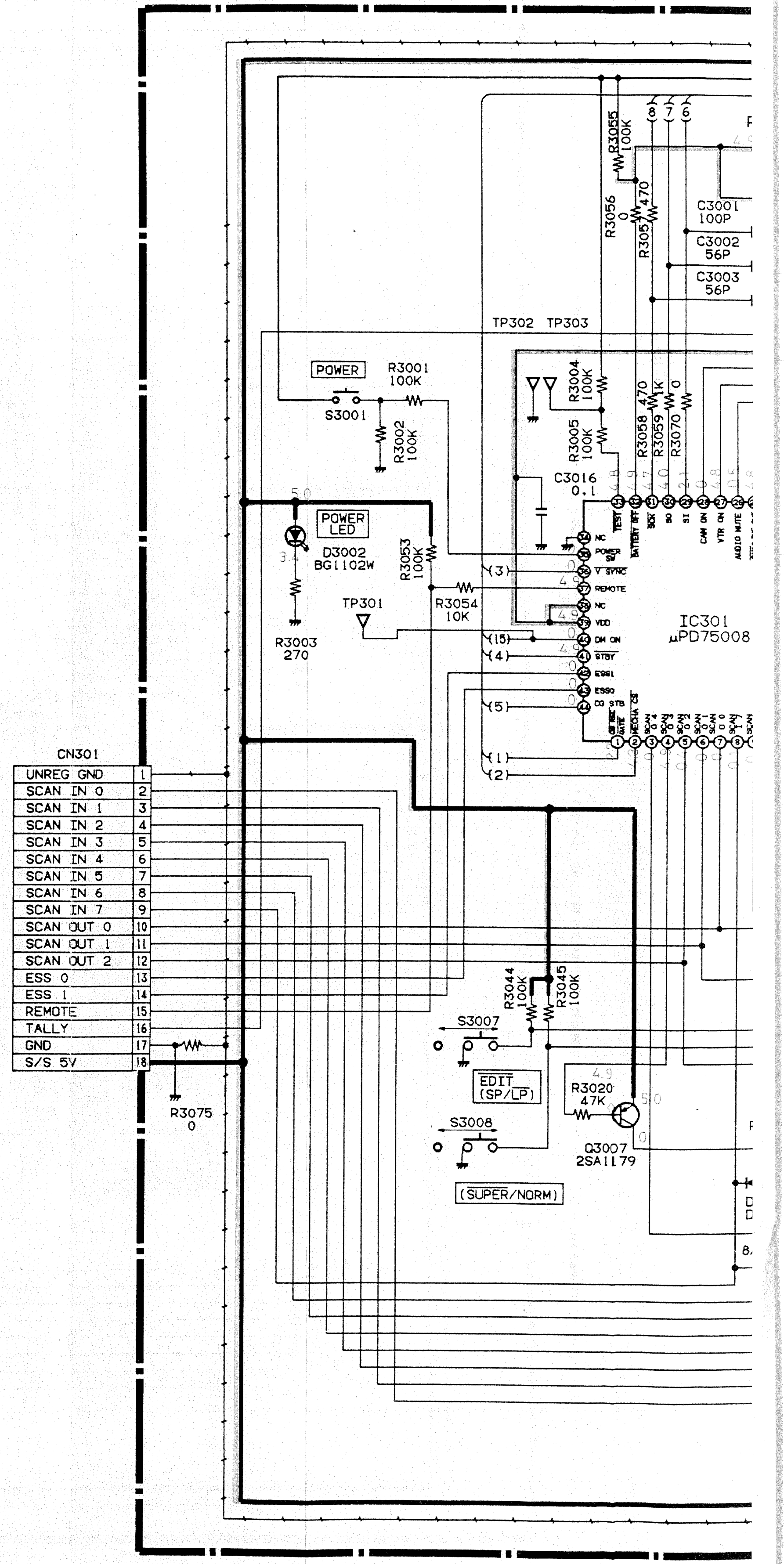
SY-1 BOARD SIDE A


S3007
R3008
R3009
D3007
R3060
R3062
R3063
R3016
VR301
VR302
S3003
S3004
S3005
S3006
C3007
IC302
C3009
S3008
R3010
TP302
TP303
R3005
X3001
R3050
D3003
D3002
R3054
C3006
D3004
CT301
R3032
S3001
CN301
X3002
IC303
C3010
C3008
R3058
R3033
R3045
R3043
R3042
R3041
R3040
R3061
R3031
R3002
R3030
R3039
R3072
S3002
TP304
TP301
R3012

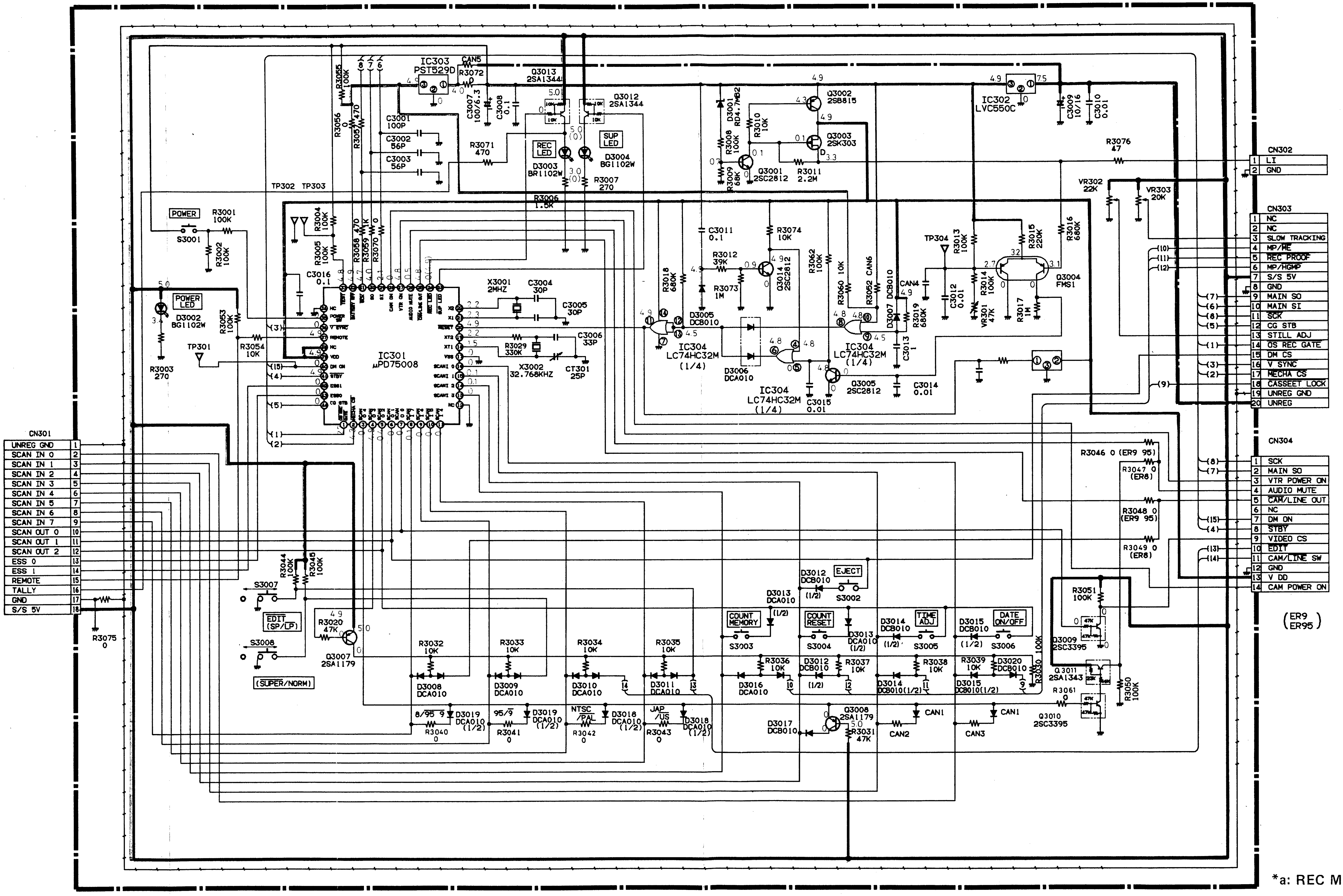
SY-1 BOARD SIDE B


CN 304
(TO VD-1)
IC304
R3019
R3013
R3073
R3004
R3011
R3018
R3014
R3015
R3017
VR303
D3013
R3057
R3058
R3059
R3029
C3004
C3005
C3016
IC301
R3053
R3044
R3051
R3001
R3038
R3037
C3012
C3014
R3055
R3071
R3075
CN303 (TO SV-1)
(TO TB-1)
CN302

	ER91P (VM-D6P, D16P)	
	EUROPE MODEL	AUSTRALIA MODEL
R3040	×	×
R3041	×	×
R3042	×	×
R3043	○	×
D3019	×	×
D3018	○	×
R3046	○	○
R3047	×	×
R3048	○	○
R3049	×	×
R3050 R3061 Q3011 Q3010	×	×
VR302 VR303	×	×
S3008	×	×
D3004 R3007 Q3012	×	×
R3075	×	×


CN301
UNREG GND 1
SCAN IN 0 2
SCAN IN 1 3
SCAN IN 2 4
SCAN IN 3 5
SCAN IN 4 6
SCAN IN 5 7
SCAN IN 6 8
SCAN IN 7 9
SCAN OUT 0 10
SCAN OUT 1 11
SCAN OUT 2 12
ESS 0 13
ESS 1 14
REMOTE 15
TALLY 16
GND 17
S/S 5V 18
R3075 0
POWER
S3001
R3001 100K
R3002 100K
POWER LED
D3002 BG1102W
R3003 270
TP301
R3053 100K
R3054 10K
TP302 TP303
R3004 100K
R3005 100K
R3058 470
R3059 1K
R3070 0
C3016 0.1
R3055 100K
R3056 0
R3057 470
C3001 100P
C3002 56P
C3003 56P
IC301 µPD75008
TEST
BATTERY OFF
SCK
SO
SI
CAM ON
VTR ON
AUDIO MUTE
NC
POWER SW
V SYNC
REMOTE
NC
VDD
DM ON
STBY
ESS1
ESS0
CG STB
MECHA CS
SCAN 0 4
SCAN 0 3
SCAN 0 2
SCAN 0 1
SCAN 0 0
S3007
EDIT (SP/LP)
S3008
(SUPER/NORM)
R3044 100K
R3045 100K
R3020 47K
Q3007 2SA1179

SY-1 CIRCUIT

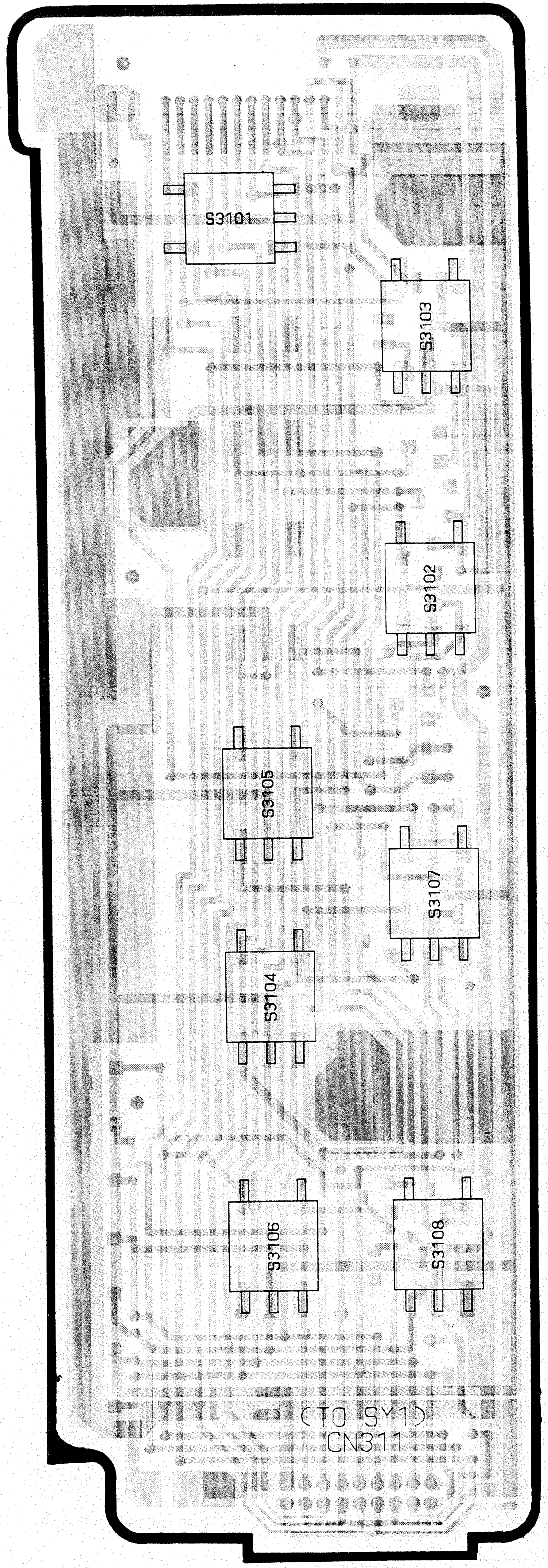

IC301
μPD75008
IC302
LVC550C
IC303
PST529D
IC304
LC74HC32M
(1/4)
X3001
2MHZ
X3002
32.768KHZ
CT301
25P
Q3001
2SC2812
Q3002
2SB815
Q3003
2SK303
Q3004
FMS1
Q3005
2SC2812
Q3007
2SA1179
Q3008
2SA1179
Q3009
2SC3395
Q3010
2SC3395
Q3011
2SA1343
Q3012
2SA1344
Q3013
2SA1344
D3001
RD4.7MB2
D3002
BG1102W
D3003
BR1102W
D3004
BG1102W
D3005
DCB010
D3006
DCA010
D3007
DCB010
POWER
POWER LED
REC LED
SUP LED
S3001
S3002
EJECT
S3003
COUNT MEMORY
S3004
COUNT RESET
S3005
TIME ADJ
S3006
DATE ON/OFF
S3007
EDIT (SP/LP)
S3008
(SUPER/NORM)
TP301
TP302
TP303
TP304
VR301 47K
VR302 22K
VR303 20K
R3001 100K
R3002 100K
R3003 270
R3004 100K
R3005 100K
R3006 1.5K
R3007 270
R3071 470
R3072 0
R3076 47
R3075 0
R3020 47K
R3031 47K
R3032 10K
R3033 10K
R3034 10K
R3035 10K
R3036 10K
R3037 10K
R3038 10K
R3039 10K
R3040 0
R3041 0
R3042 0
R3043 0
R3044 100K
R3045 100K
R3046 0 (ER9 95)
R3047 0 (ER8)
R3048 0 (ER9 95)
R3049 0 (ER8)
R3050 100K
R3051 100K
R3061 0
8/95 9
95/9
NTSC/PAL
JAP/US
CAN1
CAN2
CAN3
CAN4
CAN5
CAN6
CN301
UNREG GND
SCAN IN 0
SCAN IN 1
SCAN IN 2
SCAN IN 3
SCAN IN 4
SCAN IN 5
SCAN IN 6
SCAN IN 7
SCAN OUT 0
SCAN OUT 1
SCAN OUT 2
ESS 0
ESS 1
REMOTE
TALLY
GND
S/S 5V
CN302
LI
GND
CN303
NC
NC
SLOW TRACKING
MP/ME
REC PROOF
MP/HGMP
S/S 5V
GND
MAIN SO
MAIN SI
SCK
CG STB
STILL ADJ
OS REC GATE
DM CS
V SYNC
MECHA CS
CASSEET LOCK
UNREG GND
UNREG
CN304
SCK
MAIN SO
VTR POWER ON
AUDIO MUTE
CAM/LINE OUT
NC
DM ON
STBY
VIDEO CS
EDIT
CAM/LINE SW
GND
V DD
CAM POWER ON
(ER9 ER95)

*a: REC MODE

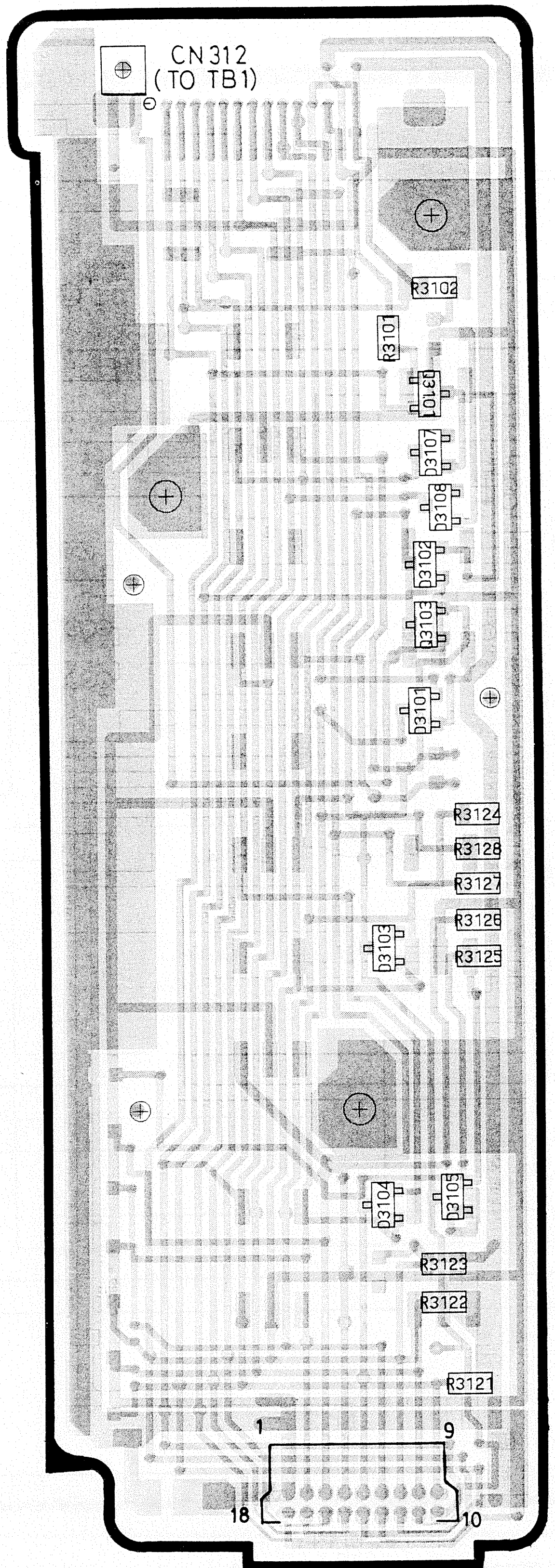
12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

6

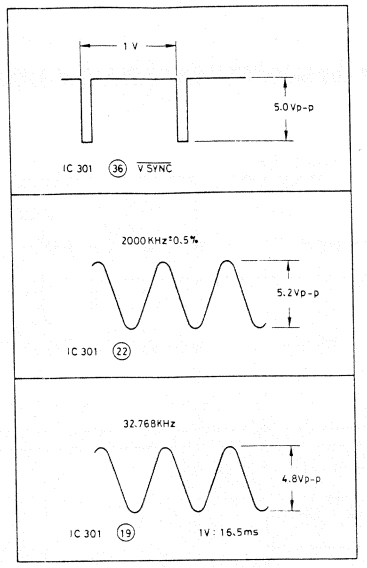
SY-2 BOARD SIDE A

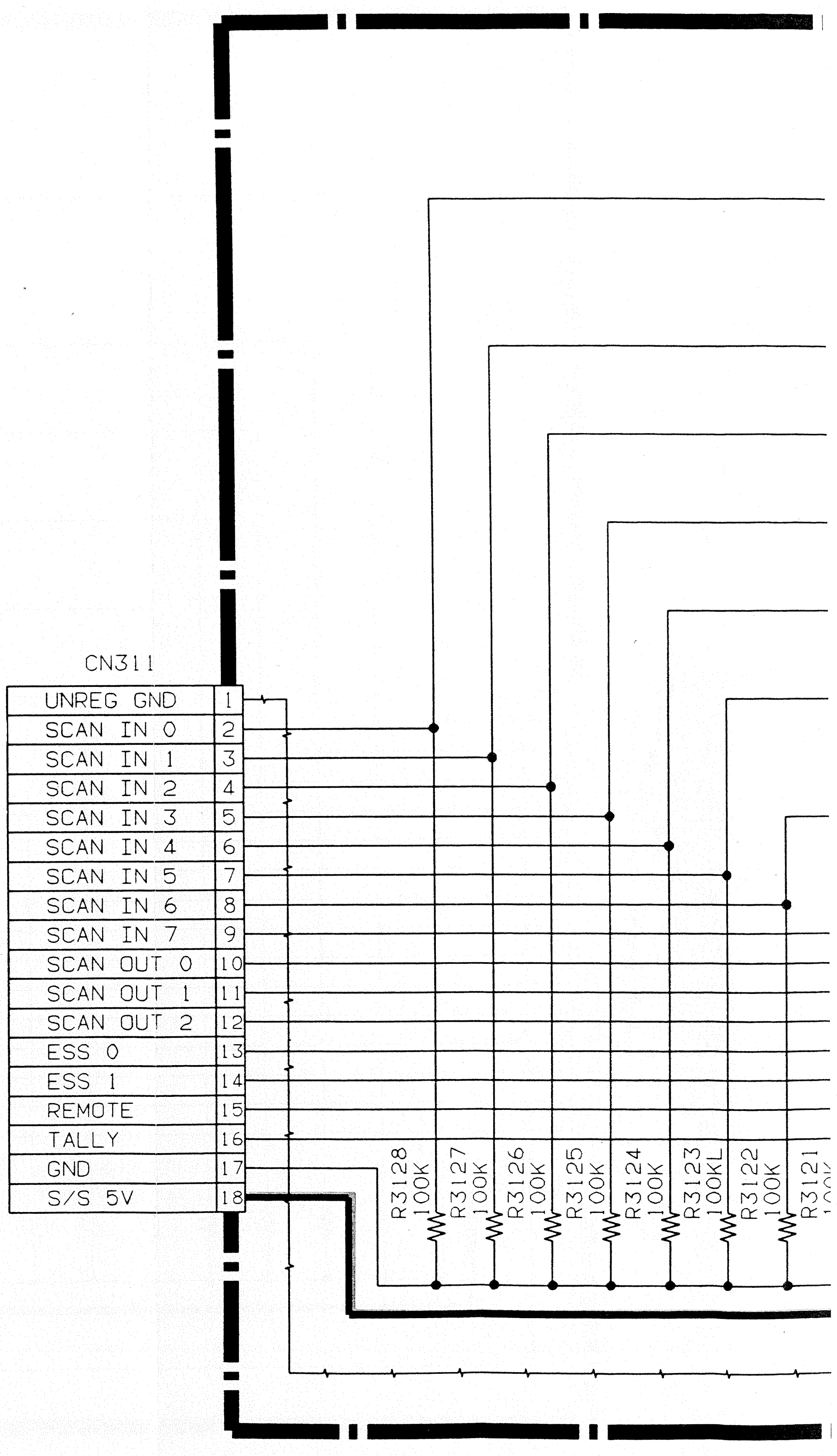

S3101
S3103
S3102
S3105
S3107
S3104
S3106
S3108
(TO SY1)
CN311

SY-2 BOARD SIDE B

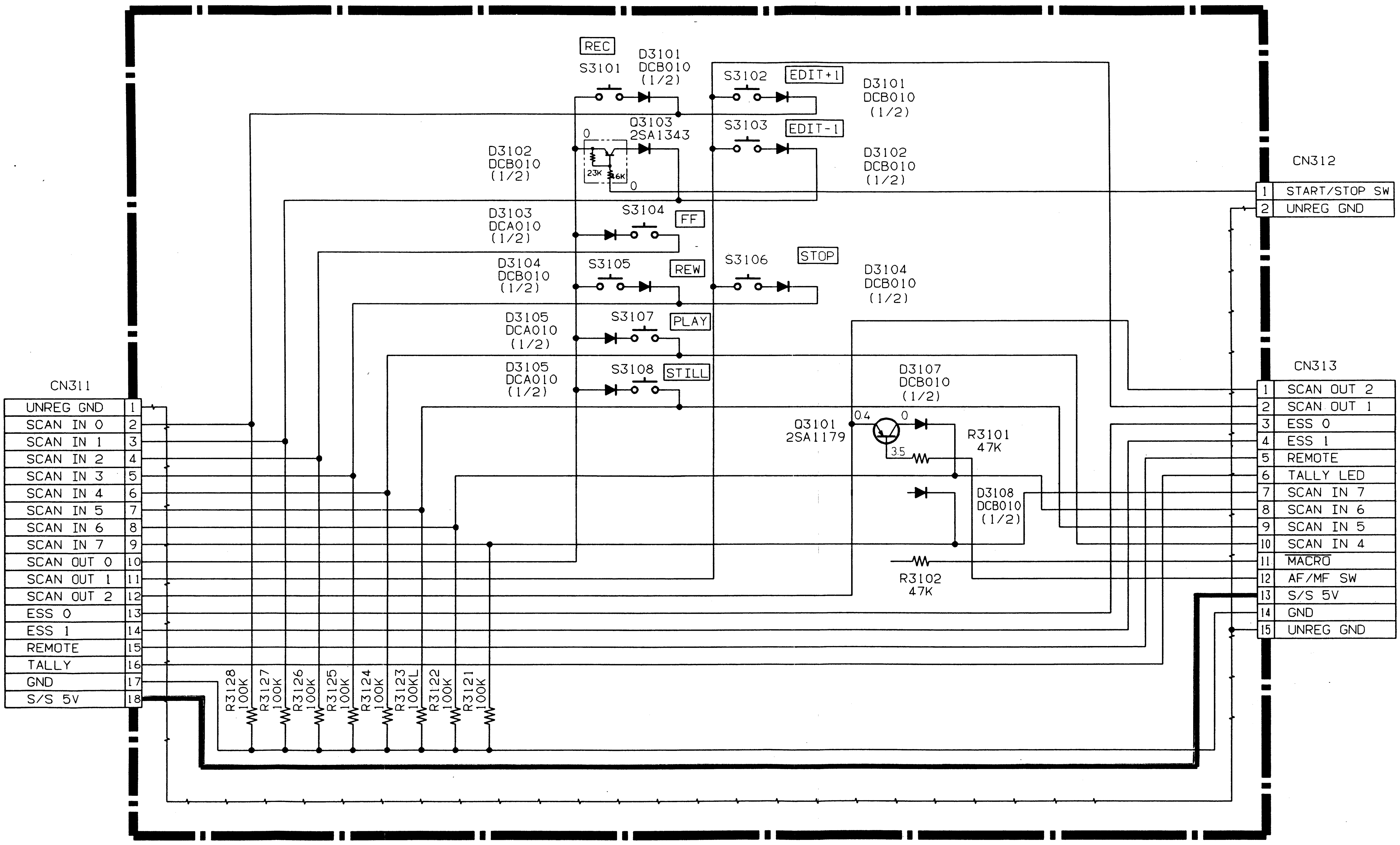

CN312
(TO TB1)
R3102
R3101
D3101
D3107
D3108
D3102
D3103
D3101
R3124
R3128
R3127
R3126
R3125
D3103
D3104
D3105
R3123
R3122
R3121
1
9
18
10

SY-2 BOARD




CN311
UNREG GND 1
SCAN IN 0 2
SCAN IN 1 3
SCAN IN 2 4
SCAN IN 3 5
SCAN IN 4 6
SCAN IN 5 7
SCAN IN 6 8
SCAN IN 7 9
SCAN OUT 0 10
SCAN OUT 1 11
SCAN OUT 2 12
ESS 0 13
ESS 1 14
REMOTE 15
TALLY 16
GND 17
S/S 5V 18
R3128 100K
R3127 100K
R3126 100K
R3125 100K
R3124 100K
R3123 100KL
R3122 100K
R3121

SY-2 CIRCUIT


REC
S3101
D3101
DCB010
(1/2)
S3102
EDIT+1
D3101
DCB010
(1/2)
Q3103
2SA1343
0
23K
4.6K
0
S3103
EDIT-1
D3102
DCB010
(1/2)
D3102
DCB010
(1/2)
D3103
DCA010
(1/2)
S3104
FF
D3104
DCB010
(1/2)
S3105
REW
S3106
STOP
D3104
DCB010
(1/2)
D3105
DCA010
(1/2)
S3107
PLAY
D3105
DCA010
(1/2)
S3108
STILL
D3107
DCB010
(1/2)
Q3101
2SA1179
0.4
0
3.5
R3101
47K
D3108
DCB010
(1/2)
R3102
47K
R3128 100K
R3127 100K
R3126 100K
R3125 100K
R3124 100K
R3123 100KL
R3122 100K
R3121 100K
CN311
1 UNREG GND
2 SCAN IN 0
3 SCAN IN 1
4 SCAN IN 2
5 SCAN IN 3
6 SCAN IN 4
7 SCAN IN 5
8 SCAN IN 6
9 SCAN IN 7
10 SCAN OUT 0
11 SCAN OUT 1
12 SCAN OUT 2
13 ESS 0
14 ESS 1
15 REMOTE
16 TALLY
17 GND
18 S/S 5V
CN312
1 START/STOP SW
2 UNREG GND
CN313
1 SCAN OUT 2
2 SCAN OUT 1
3 ESS 0
4 ESS 1
5 REMOTE
6 TALLY LED
7 SCAN IN 7
8 SCAN IN 6
9 SCAN IN 5
10 SCAN IN 4
11 MACRO
12 AF/MF SW
13 S/S 5V
14 GND
15 UNREG GND

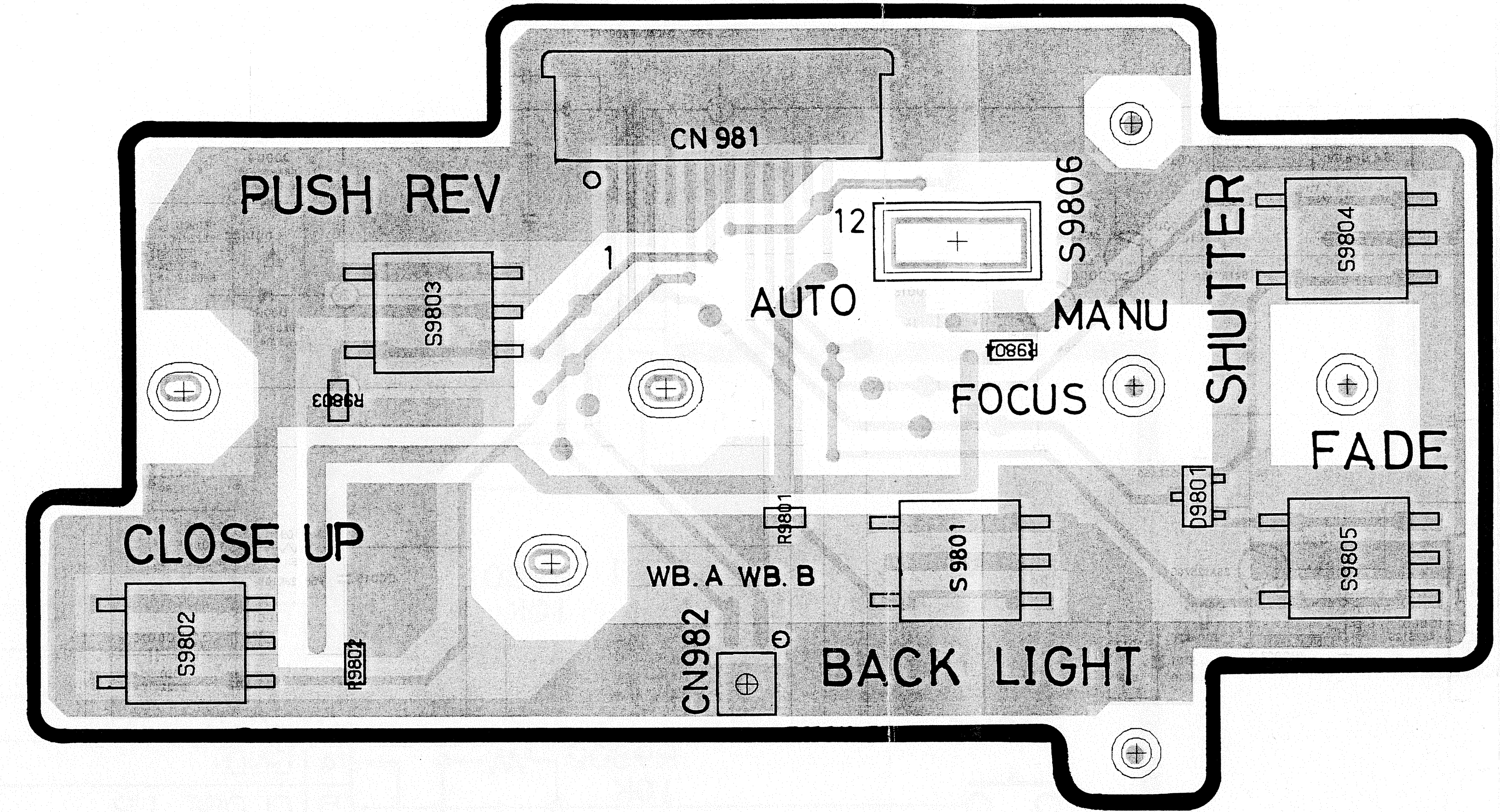
Ⓚ

*a: REC MODE

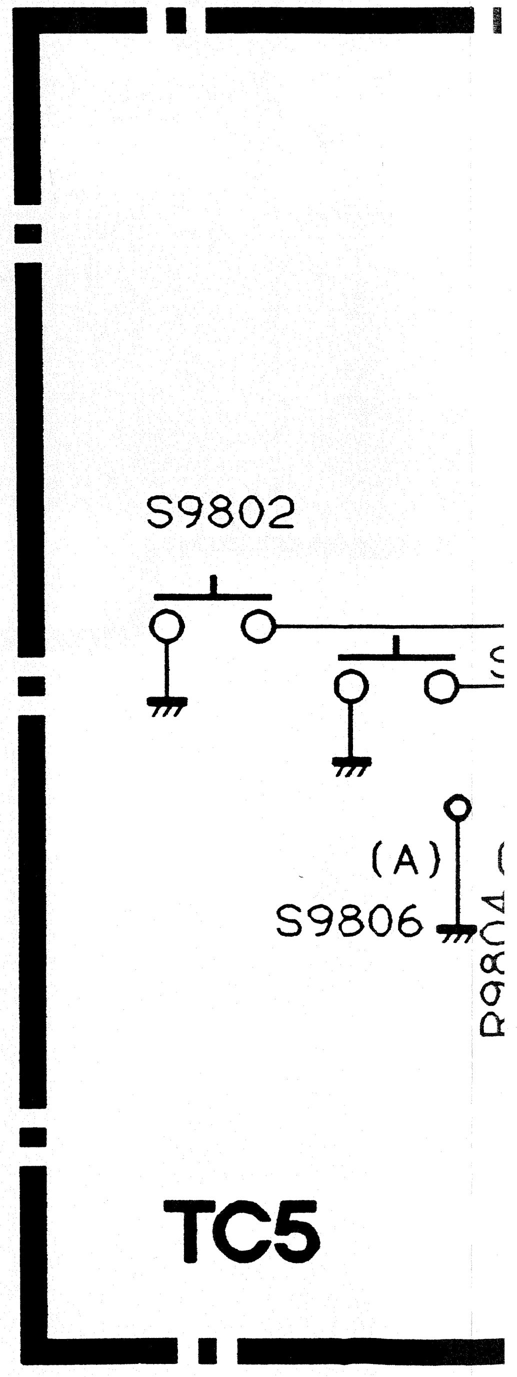
12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

6

TC-5 BOARD SIDE A

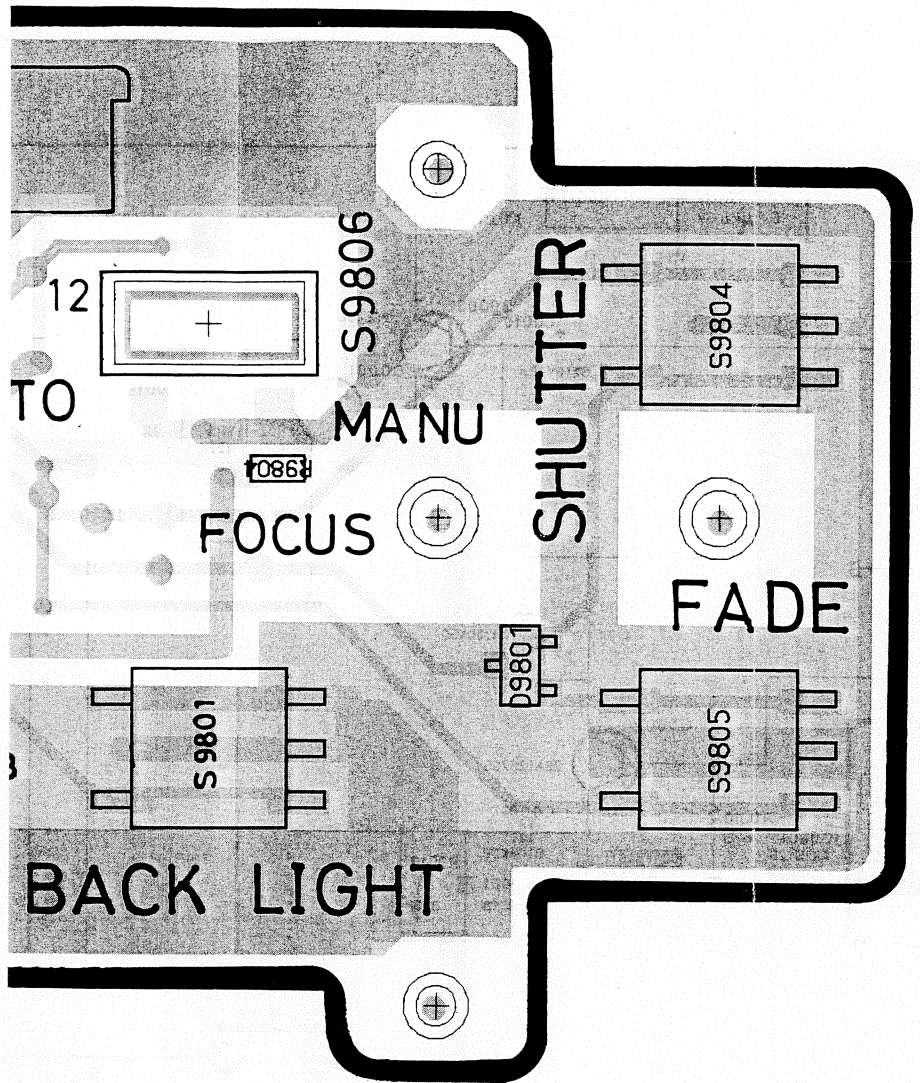


CN 981
PUSH REV
1
12
S9806
AUTO
MANU
SHUTTER
S9804
S9803
R9804
FOCUS
FADE
R9803
D9801
R9801
CLOSE UP
S9801
S9805
WB. A WB. B
S9802
CN982
R9802
BACK LIGHT
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15



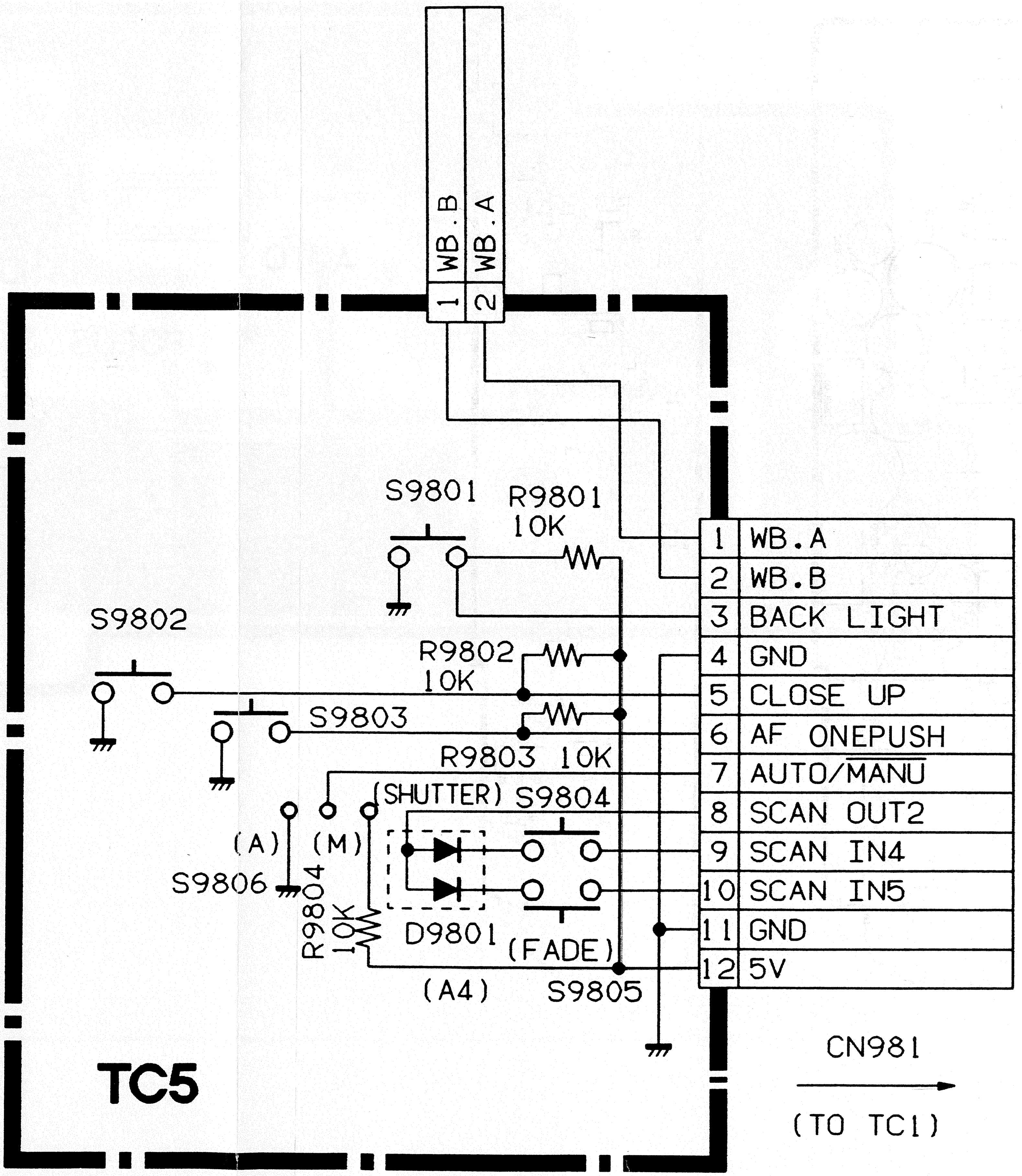
S9802
(A)
S9806
TC5

DE A



12
TO
S9806
MANU
SHUTTER
S9804
R9801
FOCUS
FADE
D9801
S9801
S9805
BACK LIGHT

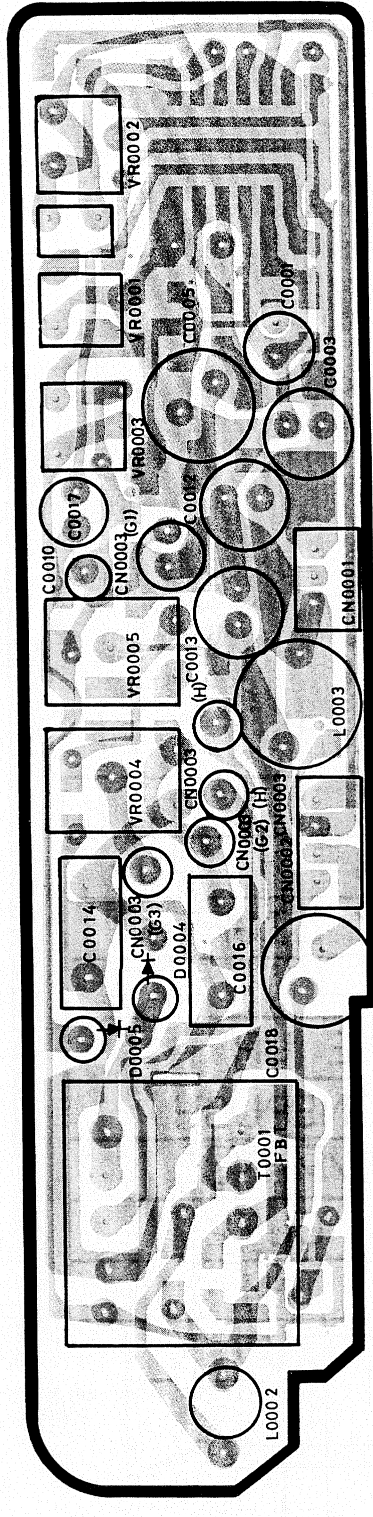
TC-5 CIRCUIT



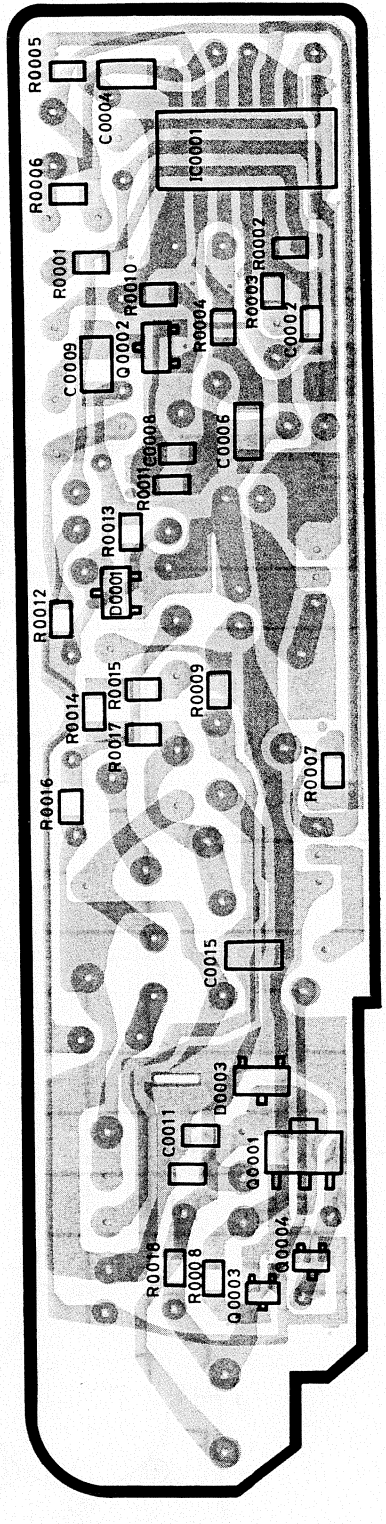
WB.B
WB.A
1
2
S9801
R9801
10K
S9802
R9802
10K
S9803
R9803 10K
(SHUTTER) S9804
(A)
(M)
S9806
R9804
10K
D9801
(FADE)
(A4)
S9805
1 WB.A
2 WB.B
3 BACK LIGHT
4 GND
5 CLOSE UP
6 AF ONEPUSH
7 AUTO/MANU
8 SCAN OUT2
9 SCAN IN4
10 SCAN IN5
11 GND
12 5V
TC5
CN981
(TO TC1)

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

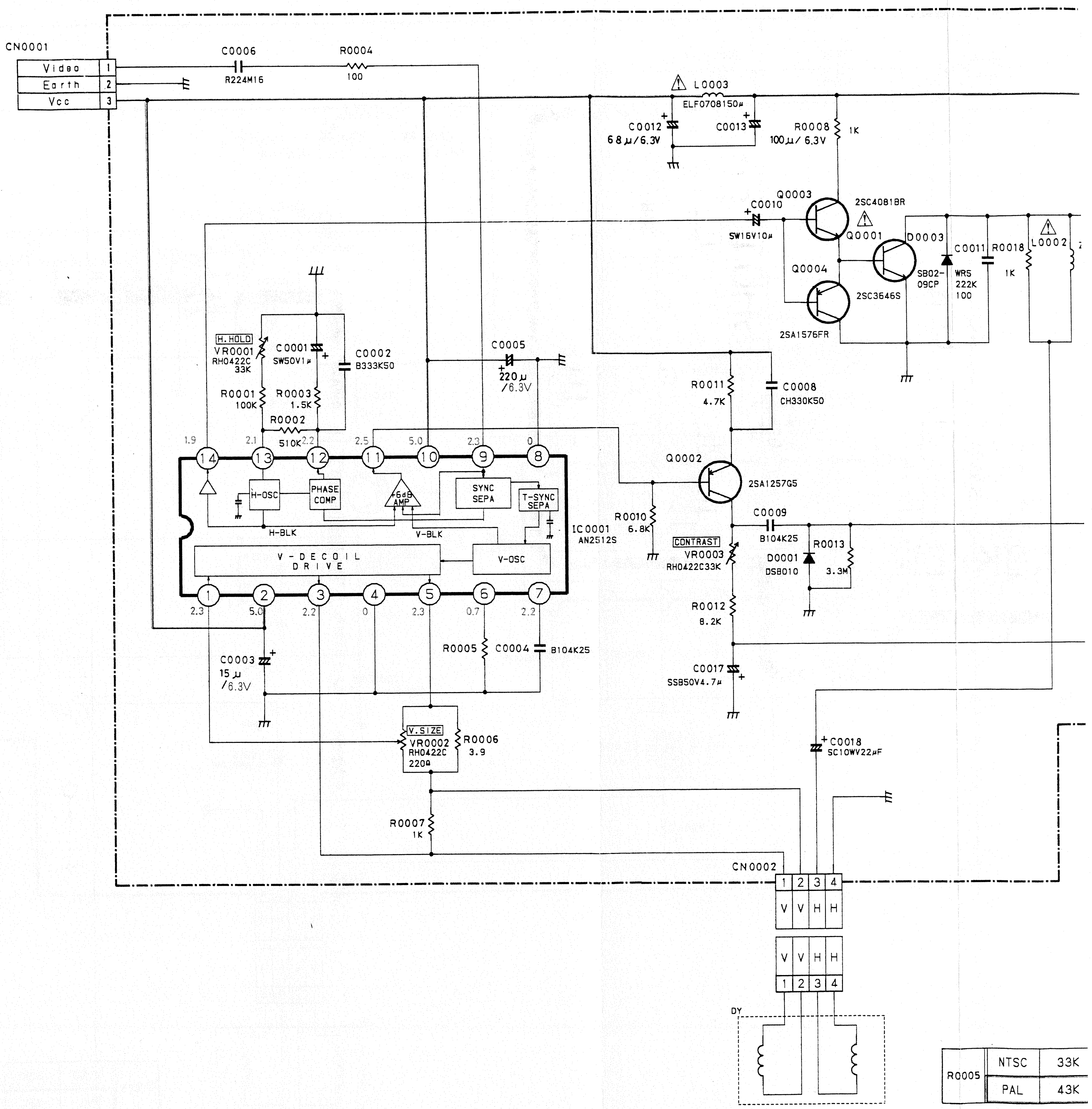
VF-1 BOARD SIDE A


VR0002
VR0001
C0005
C0007
C0003
VR0003
C0012
C0017
CN0003(G1)
C0010
CN0001
VR0005
C0013
(H)
L0003
VR0004
CN0003
CN0003 (G2) (H)
CN0003 (G3)
C0014
D0004
C0016
D0005
C0018
T0001 FBT
L0002

VF-1 BOARD SIDE B


R0005
C0004
R0006
IC0001
R0001
R0002
R0010
R0003
C0009
Q0002
R0004
C0002
C0008
R0011
C0006
R0013
D0001
R0012
R0014
R0015
R0009
R0017
R0016
R0007
C0015
D0003
C0011
Q0001
R0018
R0008
Q0004
Q0003

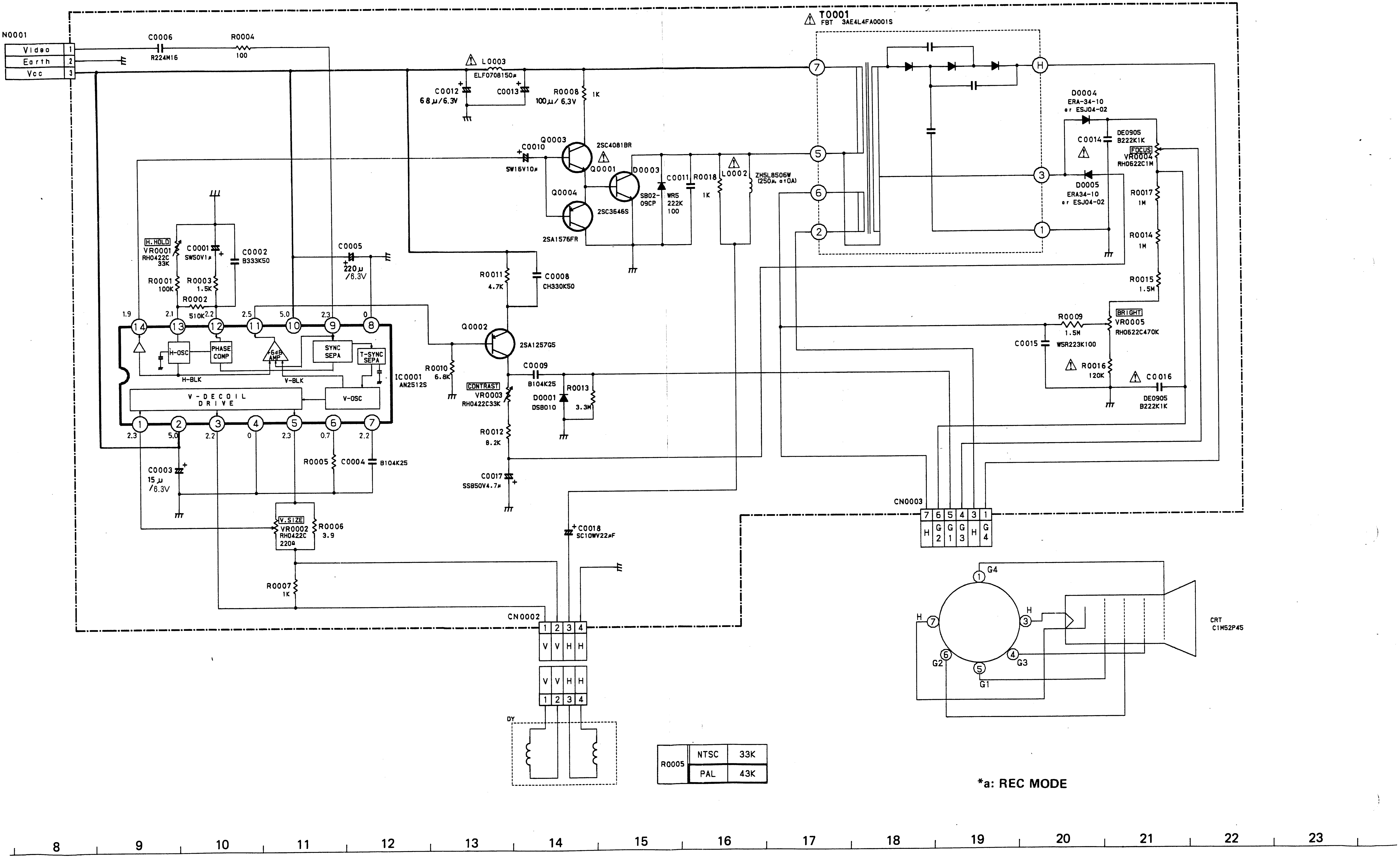
VF-1 CIRCUIT


CN0001
Video 1
Earth 2
Vcc 3
C0006
R224M16
R0004
100
L0003
ELF0708150µ
C0012
68µ/6.3V
C0013
R0008
100µ/6.3V
1K
Q0003
2SC4081BR
C0010
SW15V10µ
Q0001
D0003
C0011
R0018
L0002
Q0004
SB02-09CP
WRS 222K 100
1K
2SC3646S
2SA1576FR
H.HOLD
VR0001
RH0422C 33K
C0001
SW50V1µ
C0002
B333K50
C0005
220µ /6.3V
R0001 100K
R0003 1.5K
R0002 510K
R0011 4.7K
C0008
CH330K50
1.9
2.1
2.2
2.5
5.0
2.3
0
14
13
12
11
10
9
8
H-OSC
PHASE COMP
6dB AMP
SYNC SEPA
T-SYNC SEPA
H-BLK
V-BLK
V-DECOIL DRIVE
V-OSC
IC0001
AN2512S
Q0002
2SA1257G5
R0010 6.8K
C0009
B104K25
CONTRAST
VR0003
RH0422C33K
D0001
DS8010
R0013
3.3M
R0012
8.2K
C0017
SS50V4.7µ
1
2
3
4
5
6
7
2.3
5.0
2.2
0
2.3
0.7
2.2
C0003
15µ /6.3V
R0005
C0004
B104K25
V.SIZE
VR0002
RH0422C
220Ω
R0006
3.9
C0018
SC10WV22µF
R0007
1K
CN0002
1 2 3 4
V V H H
V V H H
1 2 3 4
DY

R0005	NTSC	33K
	PAL	43K

K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

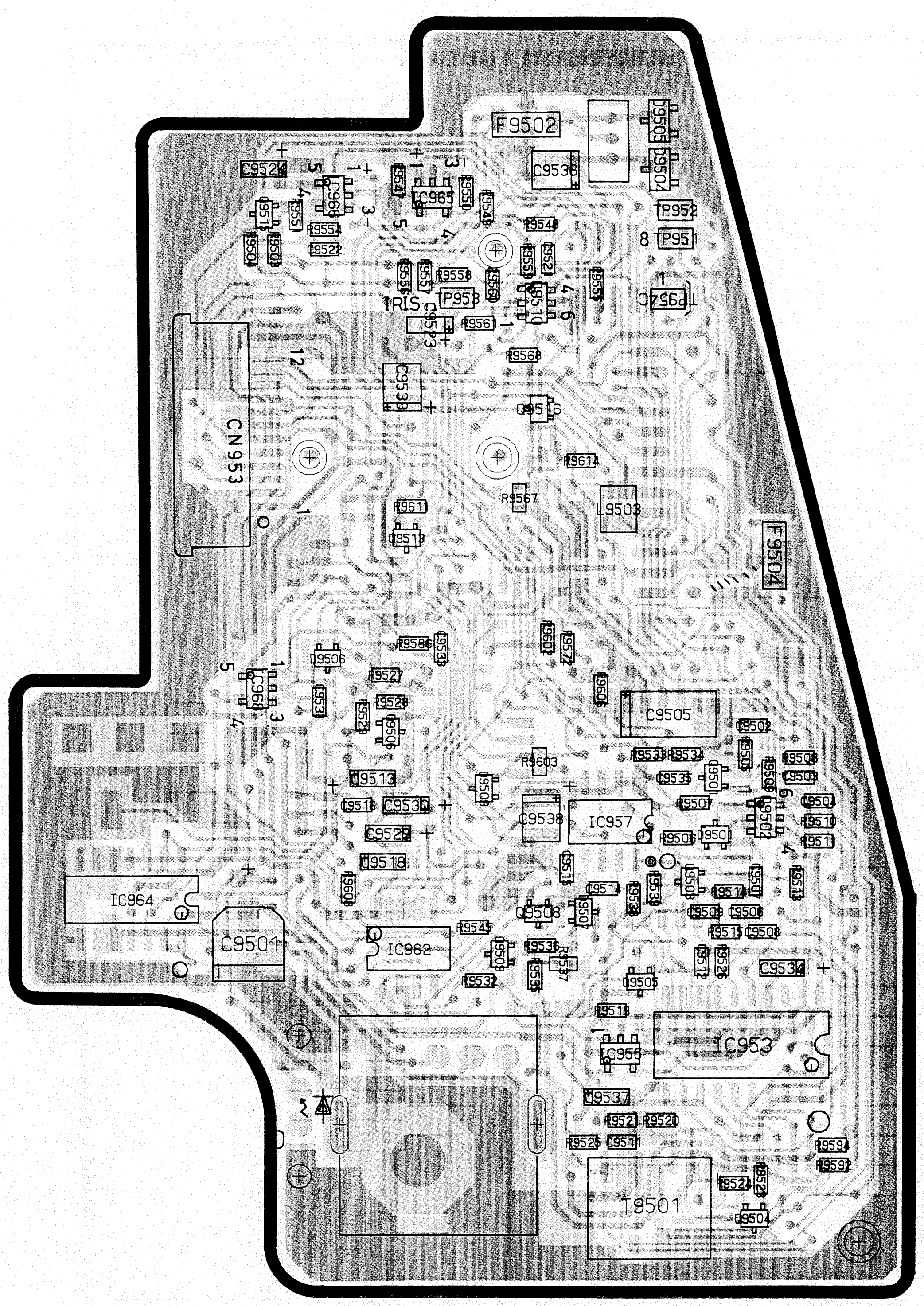
VF-1 CIRCUIT


N0001
Video 1
Earth 2
Vcc 3
C0006
R224M16
R0004
100
L0003
ELF0708150μ
C0012
68μ/6.3V
C0013
R0008
100μ/ 6.3V
1K
Q0003
2SC4081BR
C0010
SW16V10μ
Q0001
Q0004
2SC3646S
2SA1576FR
D0003
SB02-09CP
C0011
WR5 222K 100
R0018
1K
L0002
ZHSL8506W (250μ, α10A)
T0001
FBT 3AE4L4FA0001S
7
5
6
2
H
3
1
D0004
ERA-34-10 or ESJ04-02
C0014
DE0905 B222K1K
FOCUS
VR0004
RH0622C1M
D0005
ERA34-10 or ESJ04-02
R0017
1M
R0014
1M
R0015
1.5M
R0009
1.5M
BRIGHT
VR0005
RH0622C470K
C0015
WSR223K100
R0016
120K
C0016
DE0905 B222K1K
H.HOLD
VR0001
RH0422C 33K
C0001
SW50V1μ
C0002
B333K50
R0001
100K
R0003
1.5K
R0002
510K
C0005
220μ /6.3V
R0011
4.7K
C0008
CH330K50
Q0002
2SA1257GS
R0010
6.8K
C0009
B104K25
CONTRAST
VR0003
RH0422C33K
D0001
DSB010
R0013
3.3M
R0012
8.2K
C0017
SS50V4.7μ
1.9 2.1 2.2 2.5 5.0 2.3 0
14 13 12 11 10 9 8
H-OSC
PHASE COMP
6dB AMP
SYNC SEPA
T-SYNC SEPA
H-BLK
V-BLK
V-DECOIL DRIVE
V-OSC
IC0001
AN2512S
1 2 3 4 5 6 7
2.3 5.0 2.2 0 2.3 0.7 2.2
C0003
15μ /6.3V
R0005
C0004
B104K25
V.SIZE
VR0002
RH0422C 220Ω
R0006
3.9
R0007
1K
C0018
SC10WV22μF
CN0002
1 2 3 4
V V H H
V V H H
1 2 3 4
DY
CN0003
7 6 5 4 3 1
H G2 G1 G3 H G4
G4
H
H
G3
G2
G1
CRT
C1M52P45
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

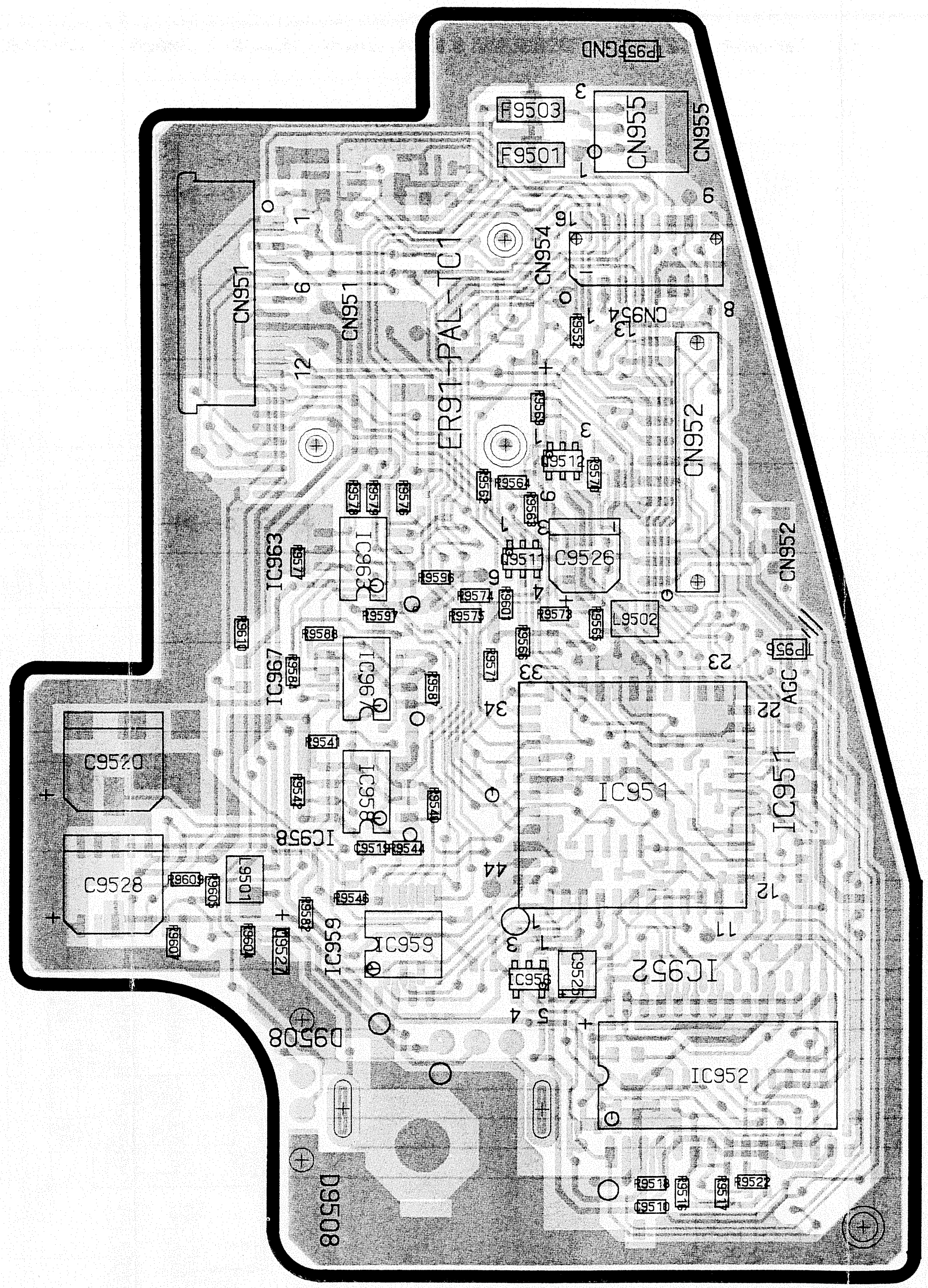
R0005		
	NTSC	33K
	PAL	43K

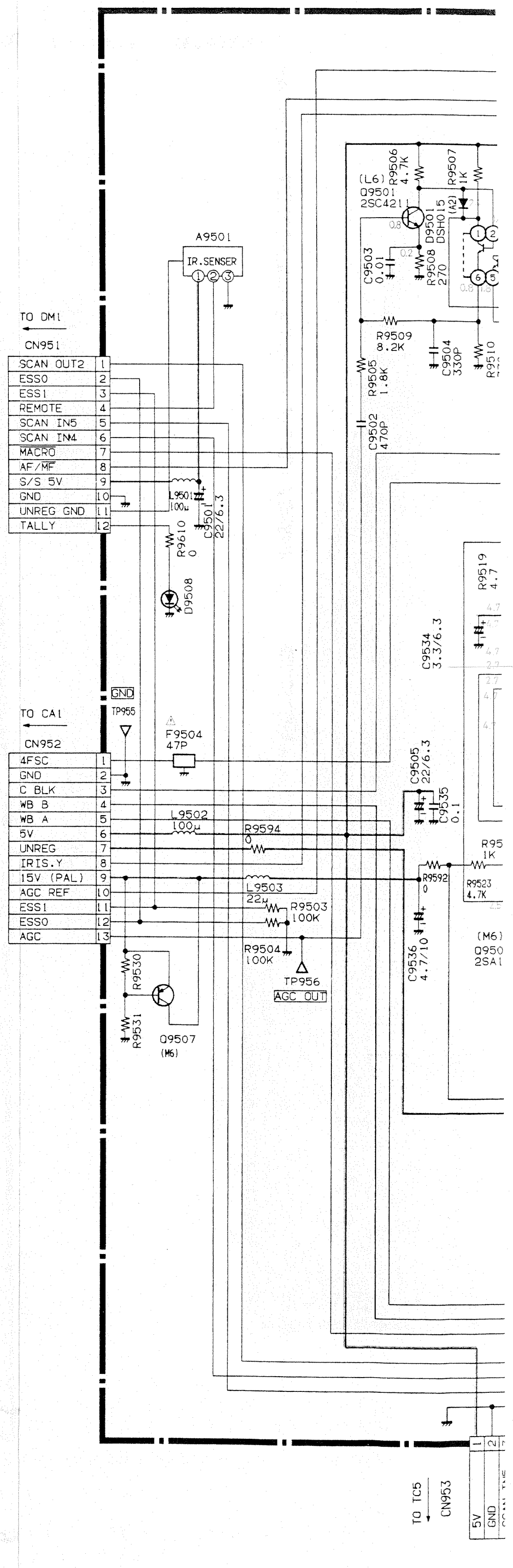
***a: REC MODE**

TC-1 BOARD SIDE A

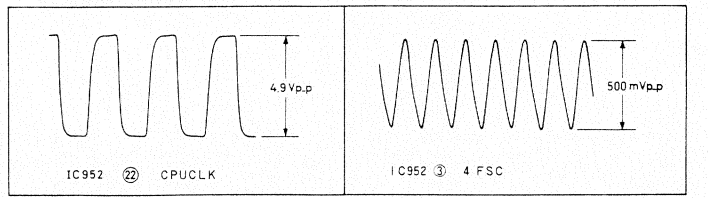

CN953
IC964
C9501
IC962
IC957
C9538
C9505
L9503
F9504
F9502
C9536
T9501
IC953
IC955
IRIS
TP953
TP952
TP951
TP956
C9539
C9530
C9529
C9524
IC961
IC965
IC968

TC-1 BOARD SIDE B

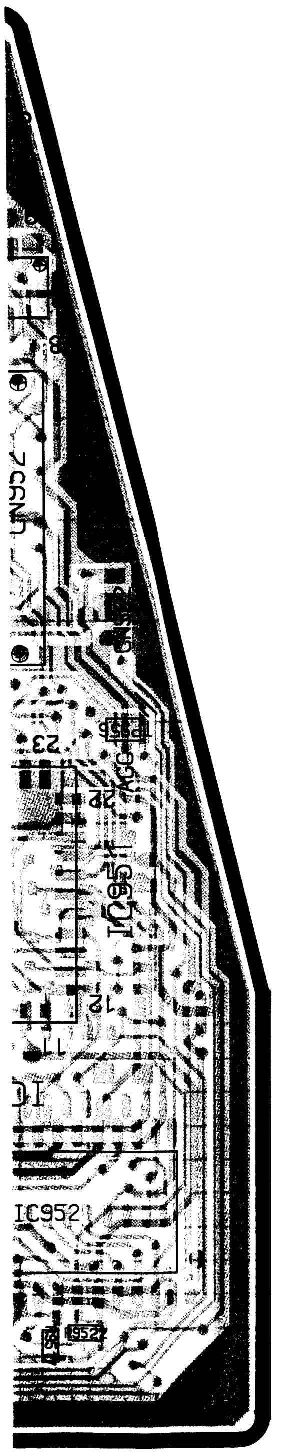

TP95GND
F9503
F9501
CN955
CN951
CN954
CN952
ER91-PAL-TC1
IC951
IC952
IC959
IC958
IC963
IC967
C9520
C9528
C9526
L9502
AGC
D9508

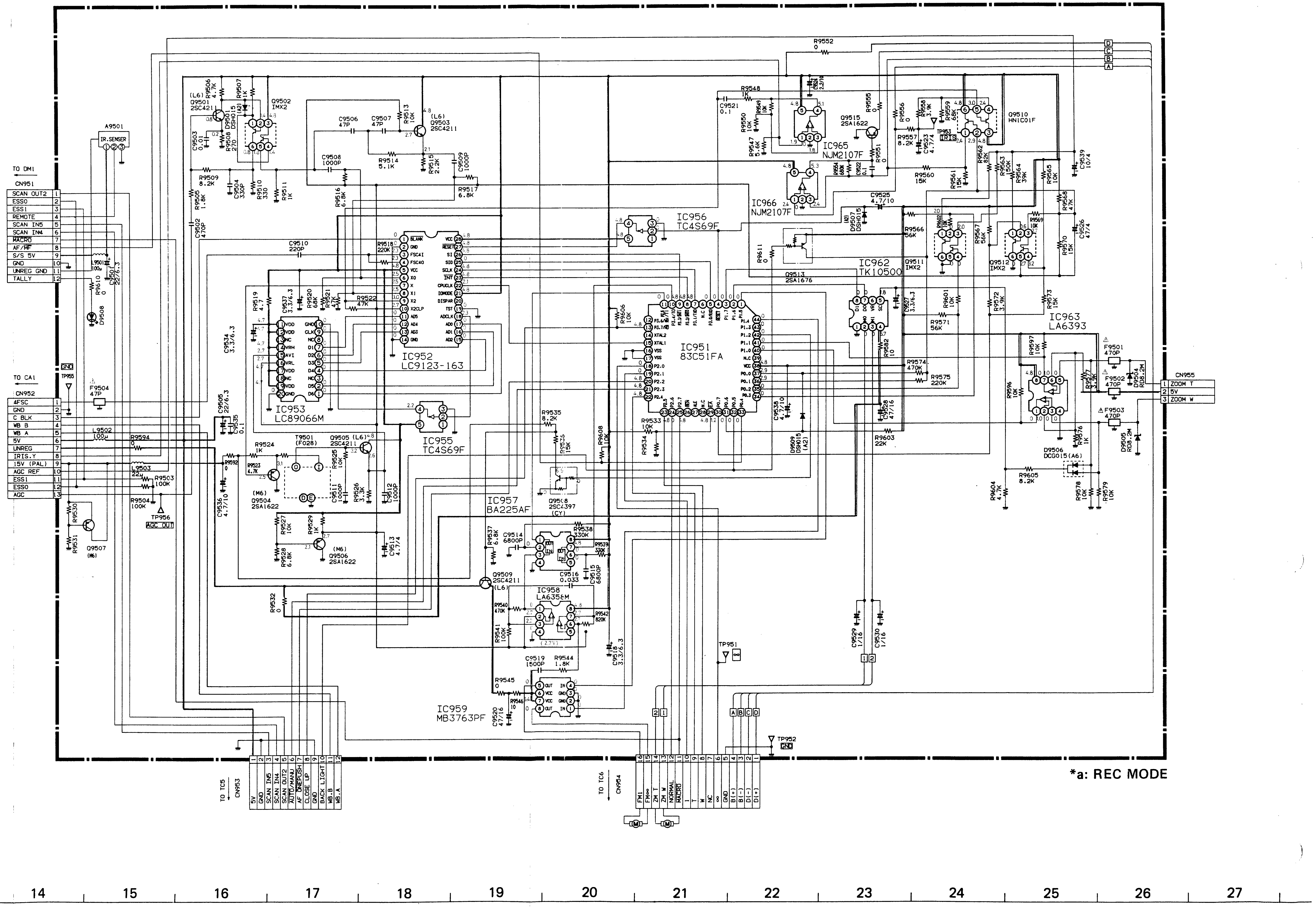

A9501
IR.SENSER
TO DM1
CN951
SCAN OUT2 1
ESSO 2
ESS1 3
REMOTE 4
SCAN IN5 5
SCAN IN4 6
MACRO 7
AF/MF 8
S/S 5V 9
GND 10
UNREG GND 11
TALLY 12
L9501 100μ
C9501 22/6.3
R9610 0
D9508
GND
TP955
TO CA1
CN952
F9504 47P
4FSC 1
GND 2
C BLK 3
WB B 4
WB A 5
5V 6
UNREG 7
IRIS.Y 8
15V (PAL) 9
AGC REF 10
ESS1 11
ESSO 12
AGC 13
L9502 100μ
R9594 0
L9503 22μ
R9503 100K
R9504 100K
TP956
AGC OUT
R9530
R9531
Q9507 (M6)
Q9501 2SC4211
R9506 4.7K
R9507 1K
R9509 8.2K
R9505 1.8K
C9502 470P
C9503 0.01
C9504 330P
R9510
R9519 4.7
C9534 3.3/6.3
C9505 22/6.3
C9535 0.1
C9536 4.7/10
R9592
R9523 4.7K
TO TC5
CN953
5V
GND

TC-1 BOARD



TC-1 CIRCUIT




TO DM1
CN951
SCAN OUT2
ESSO
ESSI
REMOTE
SCAN IN5
SCAN IN4
MACRO
AF/MF
S/S 5V
GND
UNREG GND
TALLY
A9501
IR.SENSER
TO CA1
CN952
4FSC
GND
C BLK
WB B
WB A
5V
UNREG
IRIS.Y
15V (PAL)
AGC REF
ESSI
ESSO
AGC
TP955
TP956
AGC OUT
Q9501 2SC4211
Q9502 IMX2
Q9503 2SC4211
Q9504 2SA1622
Q9505 2SC4211
Q9506 2SA1622
Q9507
Q9508 2SC4397
Q9509 2SC4211
Q9510 HN1C01F
Q9511 IMX2
Q9512 IMX2
Q9513 2SA1676
Q9515 2SA1622
T9501 (F028)
IC952 LC9123-163
IC953 LC89066M
IC955 TC4S69F
IC956 TC4S69F
IC957 BA225AF
IC958 LA6356M
IC959 MB3763PF
IC951 83C51FA
IC962 TK10500
IC963 LA6393
IC965 NJM2107F
IC966 NJM2107F
D9507 DSH015
D9509 DSH015
D9506 DCG015(A6)
TP951
TP952
TP953
IRIS
CN955
ZOOM T
5V
ZOOM W
F9501 470P
F9502 470P
F9503 470P
TO TC5
CN953
5V
GND
SCAN IN5
SCAN IN4
SCAN OUT2
AUTO/MANU
AF ONE PUSH
CLOSE UP
GND
BACK LIGHT
WB B
WB A
TO TC6
CN954
FM1
FM∞
ZM T
ZM W
NORMAL
MACRO
T
W
NC
∞
GND
B(+)
B(-)
D(-)
D(+)
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

***a: REC MODE**